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THE PRESERVATION OF CHINA'S SOVEREIGNTY

NEUTRAL THOUGHTS ON THE NEUTRALIZATION
OF SHANTUNG

A SEAPORT AT TSINANFU



THE FAR EASTERN REVIEW

SHANGHAI

NOVEMBER, 1914

VOL. XI, No. 6.

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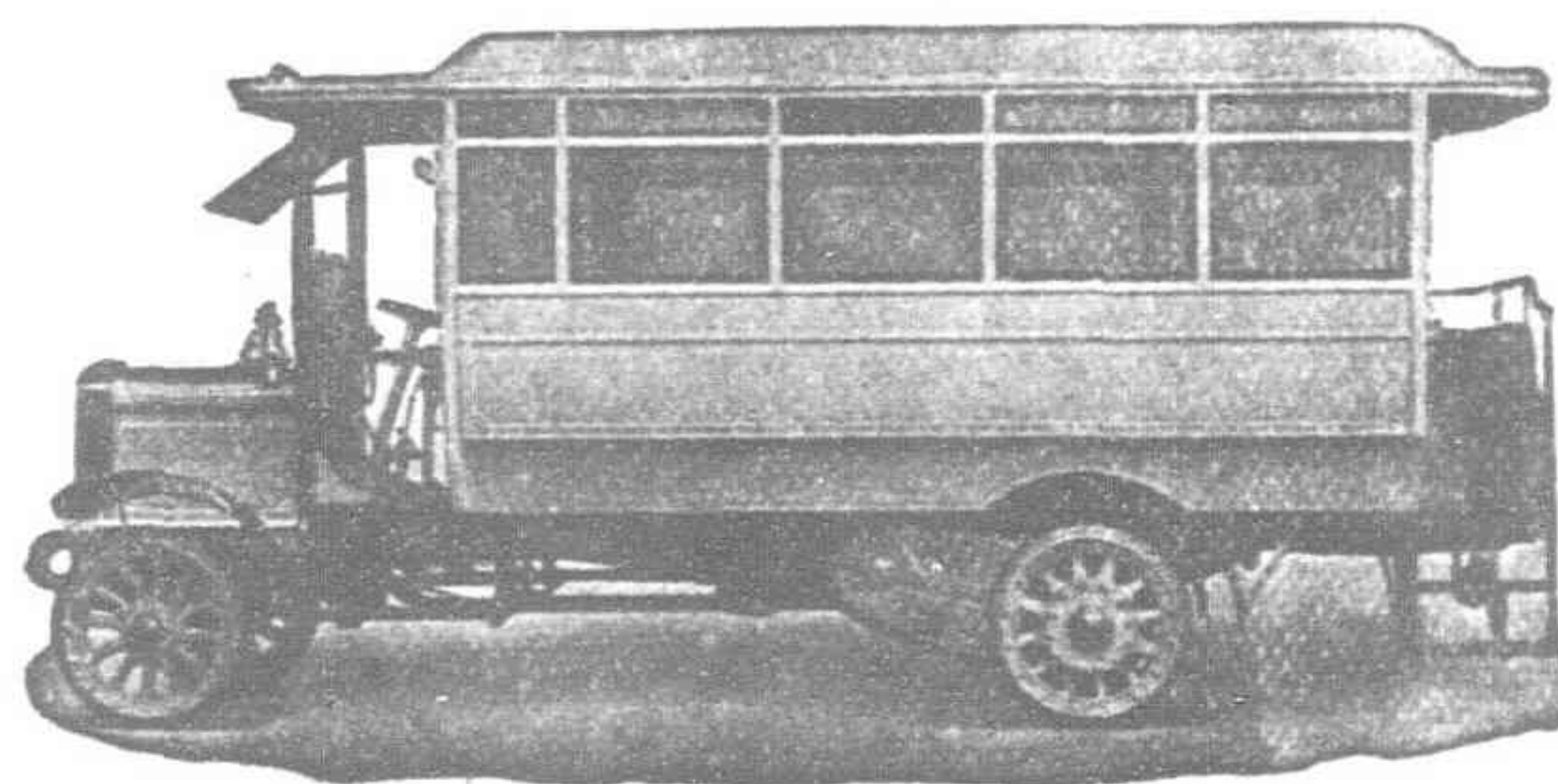
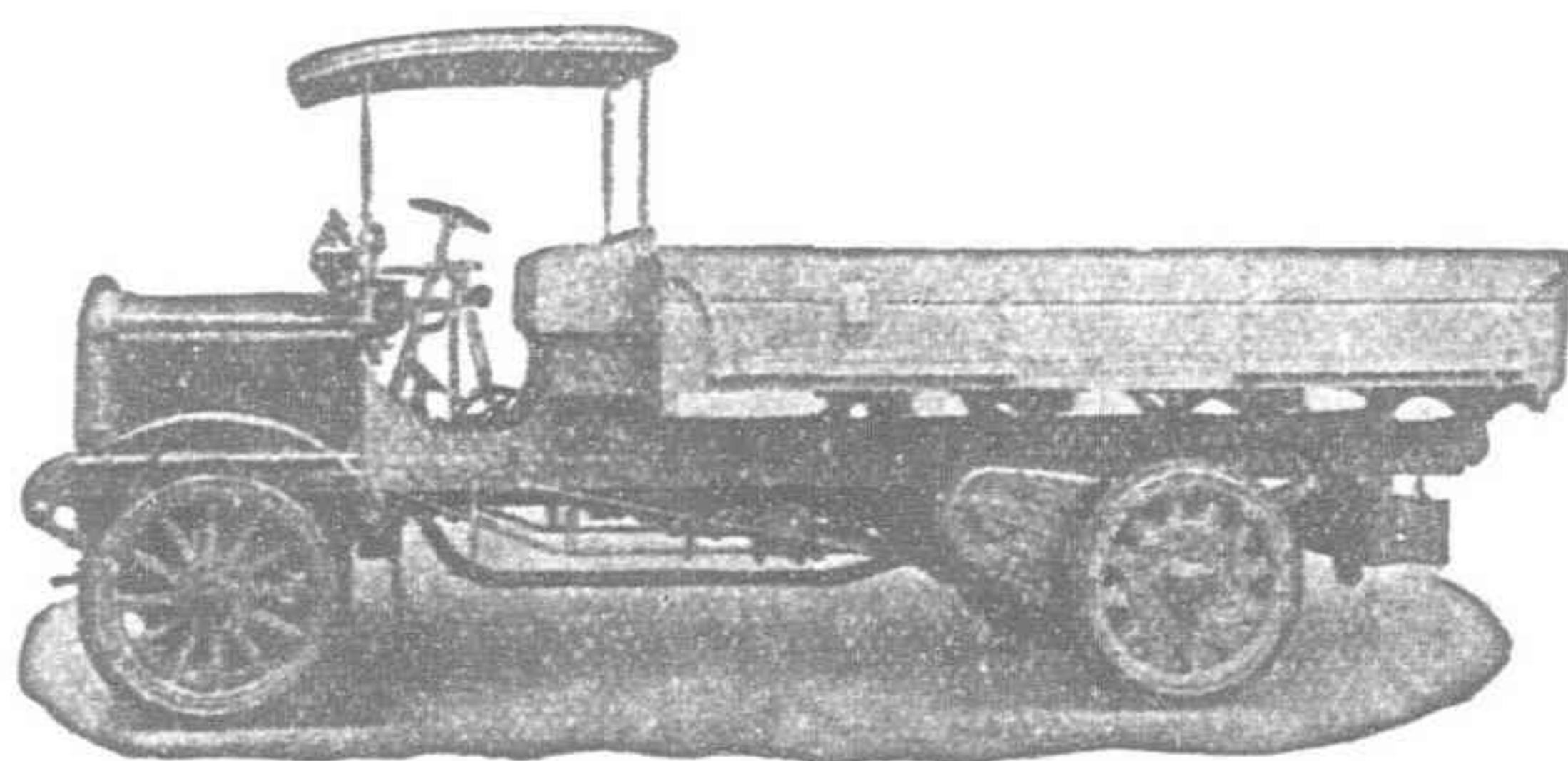


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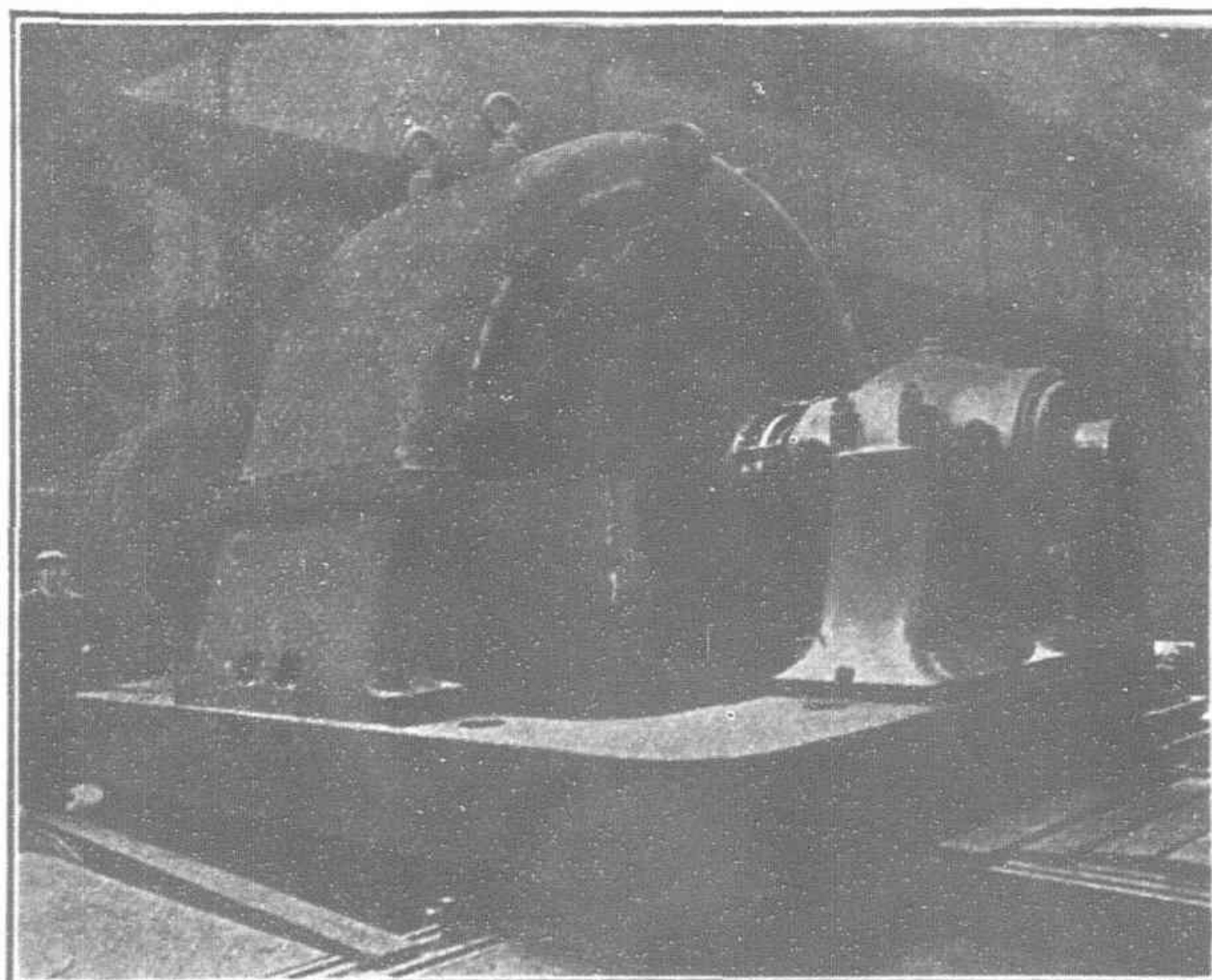
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COMMERCE :: ENGINEERING :: FINANCE

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THE PRESERVATION OF CHINA'S SOVEREIGNTY

NEUTRAL THOUGHTS ON THE NEUTRALIZATION OF SHANTUNG

I

A SEAPORT FOR TSINANFU

BY GEO. BRONSON REA, M. E.

For the past five years the Japanese authorities and merchants of Port Arthur and Dairen, have been actively seeking to extend their sphere of commercial influence into northern and western Shantung and compete with Germany for the trade supremacy of that province. Only eighty-five miles of water separates the Japanese leased territory from the northern ports of Shantung, and a large junk and steamer traffic has been established between Dairen and Chefoo and the other minor coast towns. Owing to this activity on the part of Japanese merchants, the trade of Shantung has been as greatly stimulated by the wonderful prosperity in the Kwangtung Leased Territory as by the efforts of Germany working through Tsingtau and the Shantung Railway. The Japanese from their vantage point at Port Arthur, are actuated by much the same motives as influence the Germans. In their plans for the advancement of Japanese trade interests in Shantung, they also are reluctant to contribute to the growth of Chefoo, by diverting trade from Dairen. The Japanese are quite frank about this matter, and openly state that from the viewpoint of the Dairen merchants, Chefoo is not located in a favorable position for their trade propaganda. What they desire is a port on the coast further to the west. In other words, they desire a foothold in a new unopened point, which can be developed under their influence. To use the words of a Japanese writer, in an article published over two years ago, "Fortunately there is Lungkow, that was opened to junk trade as the auxiliary port of Chefoo. It is situated 120 miles west of Chefoo, and just outside the distributing sphere of the German Shantung Railway."

To quote the words of this editor of a semi-official Japanese organ:

"A good natural harbor being scarce in Shantung there is every possibility that the place will be used to good advantage, so that it will grow to be a great gateway to the province just as much as Kiaochow on the other side of the peninsula. Moreover, from the point of connection between Dairen and the interior of Shantung, Lungkow is far more advantageous than Chefoo."

"When the place is opened to trade as an outer port of Chefoo, the benefit is not limited to those above enumerated. The land in the neighborhood now left in waste will at once become valuable, and become a great resource to the province

whose financial condition is in no way an enviable state. Further, if the Hsiao Ching-ho, an old canal, be dredged out, the distance of 100 miles from Tsinanfu to the river mouth can be freely covered by large junks or even small steamboats, instead of little crafts now plying between the coast and Tsinanfu, and establish connection with the Tsingtau-Tsinanfu Railway from the northern shore."

"Of course, more or less artificial means are needed to make Lungkow a serviceable port, but there is no necessity to start the work on a gigantic scale so as to enable large ocean-going steamers to come alongside the wharf. Parties interested in the development of the harbor are considering the work of increasing the depth of water sufficient for the present, using a part of the income derived through the disposal of land along the water front for the work. Since the Chinese authorities of Shantung as well as the local people are approving the scheme, it may come out as a concrete fact before long unless some unforeseen impediments block its way."

This was written in April, 1912, and published in the "China Tribune" of Tientsin, the recognized authority on Japanese affairs in China. The same paper is responsible for the following significant note, showing the trend of Japanese thought at that time.

"Shipping trade along the northern coast of Shantung Province has been making steady progress of late, and there are now very few ports to which steamers do not ply. Only between Tientsin and Lungkow there is no good port allowing the entrance of a steamer. Some fifty miles southwest of Lungkow, however, there is a river called the Hsiao Ching-ho, the mouth of which is closed with bars, only a few feet of water being found there, but proceeding up the stream there is plenty of water which is at some places as deep as 20 fathoms, (feet?) and small steamers may be run to Tsinanfu without any difficulties. Moreover the Hsiao Ching-ho runs through the fertile districts of the Province, rich in agricultural products, and Honan produce is also sent down to this river. It appears, therefore, there is a good prospect for a steamship service, and some Japanese and Chinese merchants in Chefoo are contemplating the establishment of steamship services on this river."

The Japanese authorities in Dairen were therefore fully awake to the commercial and economical advantages of the place,

as is evidenced by the organization in Dairen of the Lungkow Bank, with the head office at Lungkow and a branch at Dairen. Mr. S. O. Tanaka, the Manager of the Dairen Steamship Co., appears as the central figure of the enterprise. It seems that this gentleman solicited a grant or subsidy from the Japanese Government of Kwangtung to assist the enterprise, and it is understood that this was awarded under special conditions. The Bank is reported as being in sound financial condition, and conducting a profitable business. It is worthy of note, that Mr. Tanaka was also the leader in the proposed scheme to connect Lungkow with Hwang-hsien by a light railway. The Dairen Steamship Company is also responsible for the development of the profitable direct steamship service between Lungkow and Dairen, and Lungkow and Newchwang, thus eliminating the port of Chefoo. The establishment of a Japanese controlled and subsidized bank at Lungkow, long before its being opened as a treaty port, indicates that by the time the port was opened in December last, all the most desirable property was safely in Japanese hands, or mortgaged to the Bank. It will be recalled that to counteract the influence of Japan, the Chinese Government freely opened seven ports of her northern provinces last December to international trade. Six of these ports were located in the zone of Inner Mongolia, menaced by Japan's political pretensions in this quarter. Taonanfu, Chifang, Dolonor, Jehol, Kweihwacheng, and Hulutao were thus opened to trade. Included in the list, was the hitherto obscure and insignificant port of Lungkow in Shantung. The pressure of Japan at this point was as strongly felt as in the sphere of Inner Mongolia. It was too late however for any other foreign interests to gain a foothold in Lungkow. The operations of the Japanese Bank, and the activities of Japanese traders from Dairen, using Lungkow as their base, had forestalled other nationalities in this neglected corner of Shantung. If the much discussed and advertised Chefoo-Weihsien railway is ever built, instead of its traffic solely increasing the prosperity of Chefoo, as intended, the Japanese at Lungkow, by constructing a short line of 25 miles to Hwang-hsien, would intercept the products from the interior, and divert the export trade through their base at Lungkow.

The Japanese trading concerns at Dairen, instead of conducting business with the interior of Shantung, through the port of Chefoo, would ship their products on their own subsidized steamers through the port under their commercial control at Lungkow. This would save 75 miles of railway haul, not to mention landing charges and other special taxes levied at Chefoo. Commercially and economically, therefore, their position was correct, but to succeed they had first to persuade the Chinese authorities to open Lungkow as a treaty port. Thus the Chinese Government, who has been deeply concerned for many years over the future of Chefoo, and has devised and sanctioned many schemes to revive its commerce, and combat the ascendancy of Tsingtau, was compelled to still further detract from its importance by opening the port of Lungkow at Japan's behest. The Japanese merchants at the latter place stood to profit, no matter what plans were followed in the future. If the Railway from Chefoo to Weihsien was ever constructed, Lungkow through its favorable position further to the west would tap the line, and cut the trade of Chefoo in half. If it was never built, the Japanese would continue to use Lungkow as their base for trading with central and western Shantung, and thus be 75 miles nearer their market, than the port of Chefoo, with its established Chinese and European interests in control of property and trade.

By dredging the bar at the mouth of the Hsiao Ching-ho (Little Clear River) an unobstructed waterway is open for a very light draft steamship service direct to Tsinanfu, in the heart of Shantung. Under the Inland Waters Steam Navigation Rules, the smaller Japanese steamers would then have a clear run from Dairen to Tsinanfu, a distance of approximately 290 miles, which under normal conditions could be accomplished in 24 hours. It will be seen therefore that the Japanese program if carried out without opposition would constitute a decided menace to Germany's trade supremacy in the Province. From her base at Dairen, with through ocean and river communication, Japan could deliver her products in Tsinanfu much cheaper than by utilizing the more expensive rail route from Tsingtau. And all that is needed to accomplish this is the expenditure for dredging the bar



His Excellency President Yuan Shih-kai.

Governor of Shantung, December, 1899—November, 1901.

of the Hsiao Ching-ho at its mouth, and deepening the Channel in other places, a task much less expensive and of as much political and commercial importance as the Haiho and Liao River Conservancy and dredging works.



H. E. Chang Jen-chun.
Governor of Shantung, November, 1901—May, 1902.

It is not strange therefore, that Japan selected the almost unknown port of Lungkow as the point for the disembarkation of her army, and her permanent strategic base in the campaign against Tsingtau.

Japan has promised to return Kiaochou to China. There is no reason at this time to question her honorable intention. She has given her word, and until it is broken, public opinion should reserve judgment and criticism. If Japan hands Kiaochou back to China as she has promised to do, and Tsingtau is thrown open as an international treaty port, Japan is entitled to ask for and expect to receive adequate compensation from China. Other nations who have been prohibited by the operation of the Kiaochou Convention from enjoying equal participation in the development of Shantung, cannot complain if Japan receives some special compensation for opening the door again.

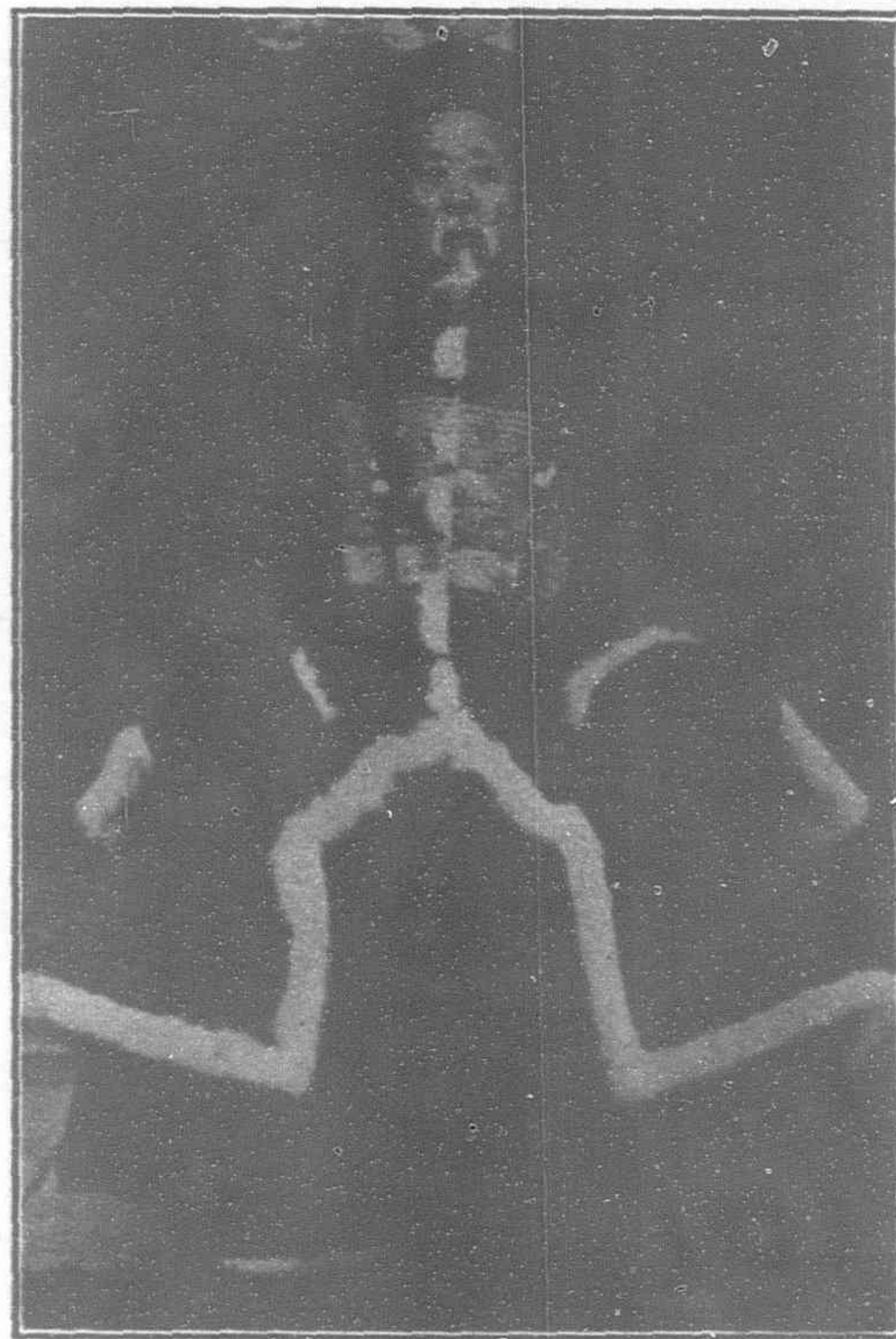
Japan's previous actions and attitude in Korea, Manchuria, Inner Mongolia, and Fukien, however, are remembered and tell against her, and other nations instinctively anticipate that she may feel justified in pursuing the same tactics in Shantung. The door may theoretically remain open, and yet be difficult for others to pass through and enjoy equal privileges on the inside. As Japan has the moral and political support of her powerful Ally, other nations have accepted the situation in Manchuria, but if the same policy be extended to Shantung, they would undoubtedly view with deep concern this additional limitation of unrestricted trade rights. However for the present, it would be manifestly unjust to presuppose any such ideas, and the world must take Japan at her word.

If Japan restores Kiaochou to China, and opens Tsingtau as an international treaty port, what compensation could she legitimately request from China without infringing the rights of other nations? Germany's railways and mines, with the rights attached to them? This could only extend to those special rights embraced in the Kiaochou Convention and constructed with purely German capital and operated as purely German concerns under a charter from the German Government. It could not extend to those railways financed by German capital, for the benefit of the Chinese Government, as these lines are the exclusive property of the latter, and the bonds although issued by a German financial institution, may be held by investors in many countries.

If it is ultimately decided that the Shantung Railway Company, which owns and operates the railways, mines and other industries embraced within the specifications of the Kiaochou Convention, is a German official corporation, in which the rights of the private investor do not count, then no other Power can reasonably criticize Japan for seizing them as spoils of war. It is

a fact nevertheless, that the capital for these enterprises was supplied by purely private investors, and the Government only exercises its rights of supervision and regulation. Or, if through the fortunes of war, and the pressure of diplomacy, these spoils are abandoned, what would remain for Japan to ask for? It occurs to us that the building of a railway from Lungkow to Weihsien, and requiring China to conserve the Hsiao Ching-ho waterway at her own expense, would adequately compensate Japan and give her an undisputed legitimate trade advantage in Central and Western Shantung, due to the proximity of her great commercial base at Dairen.

As we have remarked, it is unfair and premature to prejudge or question Japan's good faith. However, if Tsingtau is restored to China, there is no good reason why China should not contribute to the legitimate expansion of Japanese commerce by maintaining at her own expense the waterway which would permit her traders ready access from Dairen to the hinterland and heart of Shantung. This would advance her trade interests with this part of China on a more permanent and profitable basis, than is possible by the use of the railway from Tsingtau. The distance from Port Arthur to the mouth of the Hsiao Ching-ho is 165 miles and from there to Tsinanfu about 120 miles, or a total of 285 miles of sea and river. The distance by rail from Tsingtau to Tsinanfu is 240 miles. The legitimate economic and commercial advantage in freight rates must always remain with Port Arthur and Dairen. Japan could, therefore, well afford to act magnanimously by restoring Tsingtau to China, on the condition that it be maintained as an international port with equal trade opportunities to all. At the same time she could fairly and reasonably demand in compensation, that China should dredge the bar and maintain open to navigation the channel of the Hsiao Ching-ho for the vessels of all nations under the Inland Waters Steam Navigation rules. By reason of her possession of Port Arthur and Dairen, this would give Japan an honorable and legitimate trade preference over all other nations, and permit her merchants to dominate the trade of Tsinanfu and the hinterland, without resorting to unfair methods, or discrimination in freight rates over the Shantung lines. The construction of a railway from Chefoo to Weihsien with a branch to Lungkow will enable her merchants at Dairen to again control the trade of the Province, through the port of Lungkow, already under their influence. The port of Chefoo is 85 miles from Port Arthur. Lungkow is 90 miles distant from Port Arthur or for all practical purposes the



H. E. Chou-fu.
Governor of Shantung, May, 1902—October, 1904.



H. E. the late Yang Shih-hsiang.
Governor of Shantung, Jan., 1905—Sept., 1907.

sea distance is the same Lungkow, however, holds the advantage of being 75 miles nearer the heart of the province, or that much less rail distance. The Japanese merchants at Dairen and Port Arthur through their branches at Lungkow, would thus be able to counteract the influence and prominence of Chefoo, and control the market in a legitimate manner, to which neither China nor any other nation could take exception.

If China of her own volition appropriated and expended a sufficient sum for the conservancy of the Hsiao Ching-ho, her own traders would undoubtedly reap the greatest rewards. Instead of desperate and ineffectual attempts to obtain foreign funds for the construction of the Chefoo—Weihsien line, against the passive opposition of Germany, it was well within her rights to have appropriated certain sums for the conservancy of the Hsiao Ching-ho, which would have materially assisted towards neutralizing the German sphere of influence in the province by opening it up to foreign steam navigation.

This is not a new problem for China, and her officials cannot plead ignorance of its importance. From the commercial viewpoint of Tsinanfu, the capital of Shantung, the most important natural trade outlet of the province is the Hsiao Ching-ho, which has its source in the lakes and springs within the very walls of the capital. Partly canal, and partly canalized river, the Hsiao Ching-ho from time immemorial has served as the main artery of trade between Tsinanfu and the sea, and the district adjacent to Laichow Bay. Even to-day with the service of the Shantung and Tientsin-Pukow Railways, the Hsiao Ching-ho remains as the most important natural trade outlet.

In certain articles, notably timber from Manchuria, salt from the coast marshes, cigarettes imported through Chefoo, reed matting and other light but bulky articles of import, and in beans, grain, iron, rice, pans, &c., among exports, the cheaper freights make the river a very serious competitor with the railway. This competition is not alone with direct imports and exports of lighter products, but is keenly felt in the traffic between Tsinanfu and the district of Weihsien. The many rivers and creeks connected with the Hsiao Ching-ho, permit the water borne traffic to compete with the railways in all the main towns between Tsinanfu and Ching Chou fu, without passing out of the mouth of the river.

The several rivers emptying into Laichow Bay within a distance of 40 miles [from the mouth of the Hsiao Ching-ho permit the junks to compete with the railway at Weihsien and the neighbouring districts.

That the safeguarding of this most important water artery of trade has been duly considered in the past by the Chinese authorities, is evidenced by the Report of Captain W. F. Tyler (Coast Inspector to the Maritime Customs) on the Yellow River in 1906. The investigations of Captain Tyler were not carried out with the view of planning a scheme for the control of the Yellow River itself, but were directed towards finding a way to safeguard the Hsiao Ching-ho from the danger of floods and breaks in the banks of the larger and swifter river. But like all such schemes for the improvement of the country and the preservation of life and property, depending on the initiative of the Chinese Government, nothing has ever been done to preserve this important waterway. It would appear that the many Governors of Shantung, some of whom now control the destinies of the country at Peking, have fallen completely under German influence, and were either intimidated or persuaded to forego any expenditure on this scheme which would have contributed to neutralizing the effect of Germany's special privileges in the province. It has been left to the sharp witted Japanese traders to recognize the strategic commercial importance of this waterway, and to take the necessary steps to awaken the Chinese Government to its obligations.

The careful preparatory work for the opening of Lungkow, so that when foreigners were legally free to enter, the most valuable business sites and trade connections would be in Japanese hands, and the references to the necessity of dredging the Hsiao Ching-ho, clearly indicate the trend of Japan's commercial policy prior to the commencement of her operations against Germany in Tsingtau. With Lungkow opened, the next step would have been to compel China to improve the river, which would give free access to the heart of the Province.

It would seem that if Japan intends to fulfil her promise and return Kiaochow to China, and she still retains the ambition to secure the major part of the trade of the Province, that her best move would be to follow the policy already initiated. It is clear, that if the same tactics are pursued by Japan in Tsingtau and Shantung as have been charged against her in Manchuria, she will completely destroy all confidence in her word and honour, and other nations will chafe under the trade restrictions imposed. And, as in Manchuria, the animosities thus engendered will not be with American traders who have no special interests in Shantung, but



H. E. Yuan Shu-hsun.
Governor of Shantung, April, 1908—June, 1909.



H. E. Sun Pao-chi.

Actual Minister of Foreign Affairs, Governor of Shantung,
June, 1909—Dec., 1911.

will arise from those who are now the close allies and friends of the Japanese. Despite all allegations against Japan's tactics in Manchuria I have always maintained that she secured control of the import trade of that province through the operation of legitimate and natural laws of trade, rather than through the alleged freight discrimination and other unfair practices, and this view has been accepted by the majority of American merchants formerly interested in the trade of Manchuria.

Provided the Hsiao Ching-ho is dredged and kept open for light draught steamers, Japan can operate more economically and efficiently from Port Arthur than from Tsingtau. Even with the control of the railway in her hands, the direct water route from Port Arthur to Tsinanfu would control the trade situation of over half the area served by the railway. It is clearly evident then that Japan's best interest would be served by carrying out her promise to return Tsingtau to China as soon as possible, on the condition that China compensates her in part, by maintaining the channel of the Hsiao Ching-ho open to navigation, and by constructing the railway from Chefoo to Weihsien. As far as Japan is concerned, her trade point will be located at Lungkow, which enables her merchants to divert her share of the trade from Chefoo. The open river to Tsinan, will permit her small steamers to dominate the trade of the interior of the province direct from her own base at Port Arthur.

The retention of Tsingtau by Japan, will ultimately lead to discord and distrust and menace the peace of the Far East, which she is pledged to uphold. The expenditure of a few million taels in the improvement of the Hsiao Ching-ho would permit her to dominate more completely the commercial future of Shantung, in

a legitimate way, and preserve the confidence, respect, and friendship of all her commercial rivals in the East.

Germany's lease of Kiaochou has 85 years yet to run. Japan's heritage of the Kwangtung lease expires in 8 years and 4 months (March, 1923.) If Japan restores Kiaochou to China is it fair for her to ask in return an assurance that the Kwangtung lease will be extended to 85 years on its expiration?

Japan's future in China lies in the development of Manchuria through the exploitation of the South Manchuria Railway, and the other lines China has granted her the right to construct. It will take all of Japan's loose capital for years to come, to carry out her Manchurian program. If she aspires to succeed to Germany's position in Shantung, dominate the Yangtze Valley trade, and close the door in Fukien to other foreign capital, it would seem that she has bitten off more than her financial strength will assimilate. With the termination of the war, only the British and French money markets would be open to her to raise funds for the prosecution of such ambitious dreams, always provided that British capital would follow the lead of the British Government, in recognizing Japan's exclusive interests in Fukien. Japan could raise no large loan in England to advance her position in the Yangtze. French and American financiers would never entertain any Japanese proposal for funds destined for the development of Fukien. It will require large sums of money for Japan to step into Germany's shoes in Shantung, and follow out the same trade policy from Tsingtau, and it is safe to assume that she would seek in vain for financial assistance in Europe or America for the development of such schemes. China has no funds of her own, and Japan is little better off. Can she carry the load of Korea, Manchuria,



H. E. Chow Tsz-chi.

Actual Minister of Finance, Republican Governor of Shantung,
March, 1912—Sept., 1913.

Inner Mongolia, Shantung, Fukien, the Kirin-Hunchun Railway, the Inner Mongolian railways, the Foochow-Nanchang and Foochow-Canton lines in addition to the South Seas, her interests in the Yangtze Valley and other minor burdens? Japan cannot finance all these schemes. The money markets of the world will be closed to her, and if she persists in such an ambitious task, she will exhaust her credit, and be compelled to unload the burdens. The rulers of Japan will hardly sacrifice the country's financial position for years to come, to indulge in a Chinese adventure which can only spell ruin to her in the end. If we accept all this, then it is apparent that Japan's interests will be best advanced by restoring Kiaochow to China, on condition that the latter consents to an extension of her lease of Kwangtung, and engages to improve the Hsiao Ching-ho for the benefit of trade. We may now turn to a serious consideration of the suggested river improvement scheme, for the purpose of ascertaining its financial and engineering practicability.

The Hsiao Ching-ho is about 120 miles long, from its source at Tsinanfu to its outlet in Laichow Bay. Before taking under consideration the improvement of this waterway, let us inquire into the feasibility and economy of excavating an entire new waterway paralleling the Hsiao Ching-ho, so that when completed, the waters of this stream can be conveniently diverted to the new channel. This suggestion is worthy of serious consideration, as the cost of labor in North China, and especially in Shantung is phenomenally low, even when compared with other districts of China. No machinery would be required for the proposed task. It would simply call for the employment of thousands of laborers working with their accustomed native tools and under native methods and supervision. The earth excavated from the new canal would be deposited on its north bank to serve as a permanent protective dyke against the inevitable break in the banks of the Yellow River. The proposition would then resolve itself into a primitive task of excavating and banking the dirt on one side, calling for the unlimited employment of unskilled labor, working under conditions familiar to the Chinese from the experience of ages.

With this in mind, let us assume that a new canal is to be dug from Tsinanfu to the Gulf to permit the passage of vessels having a maximum displacement of 1,500 tons and a draft of 20 feet. In other words, a channel that will admit the free navigation of the ordinary type of small coasting steamers common to this part of the world. This would require a depth of 25 feet in the channel and a width of 200 feet. For the sake of economy, we will assume a channel sufficiently wide for the passage of only one steamer at a time, with turning out or passing basins at every five miles. This then will give us the following cubical contents of earth to be excavated, and deposited alongside in a bank or dyke.



General Chin Yun-peng.
Actual Military Governor of Shantung.

One harbor or basin at Tsinanfu, capable of berthing 15 steamers at one time, say 1,000 feet long by 500 feet wide by 30 feet deep. This would give about 2,500 feet of wharf length.

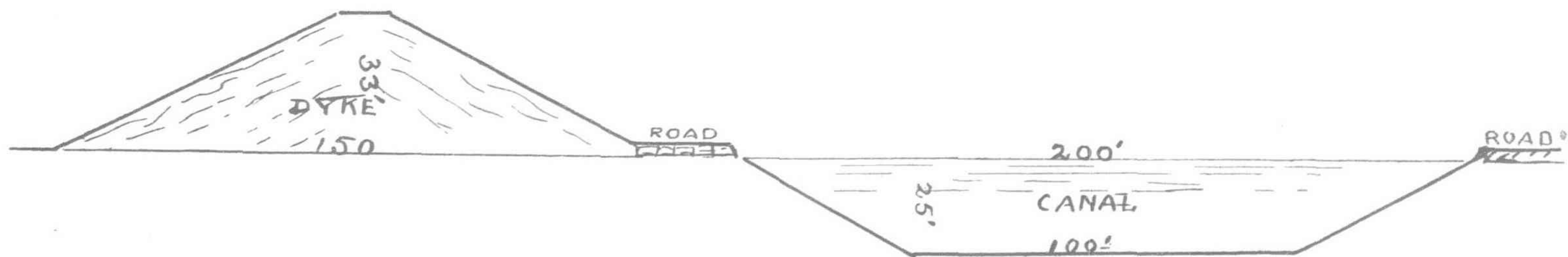
$$\frac{1,000 \times 500 \times 30}{104} = 144,000 \text{ fang.}$$

This gives us the following excavation totals:

Canal	23,000,000 fang.
Turnouts	720,000 "
Basin	144,000 "
	<hr/> 23,864,000 fang.

or in round figures 24,000,000 fang.

What would be the cost in North China, of completing this work with Chinese labor working without the use of machinery? Last year I was shown a cutting on the Chang-Shui extension on the Kalgan railway at the approaches to the bridge over the Yu



$$120 \text{ miles} \times 5,280 = 633,600 \text{ feet.}$$

$$\text{Area of cross section} - 100 \times 25 = 2,500$$

$$\text{" " " } 50 \times 25 = 1,250$$

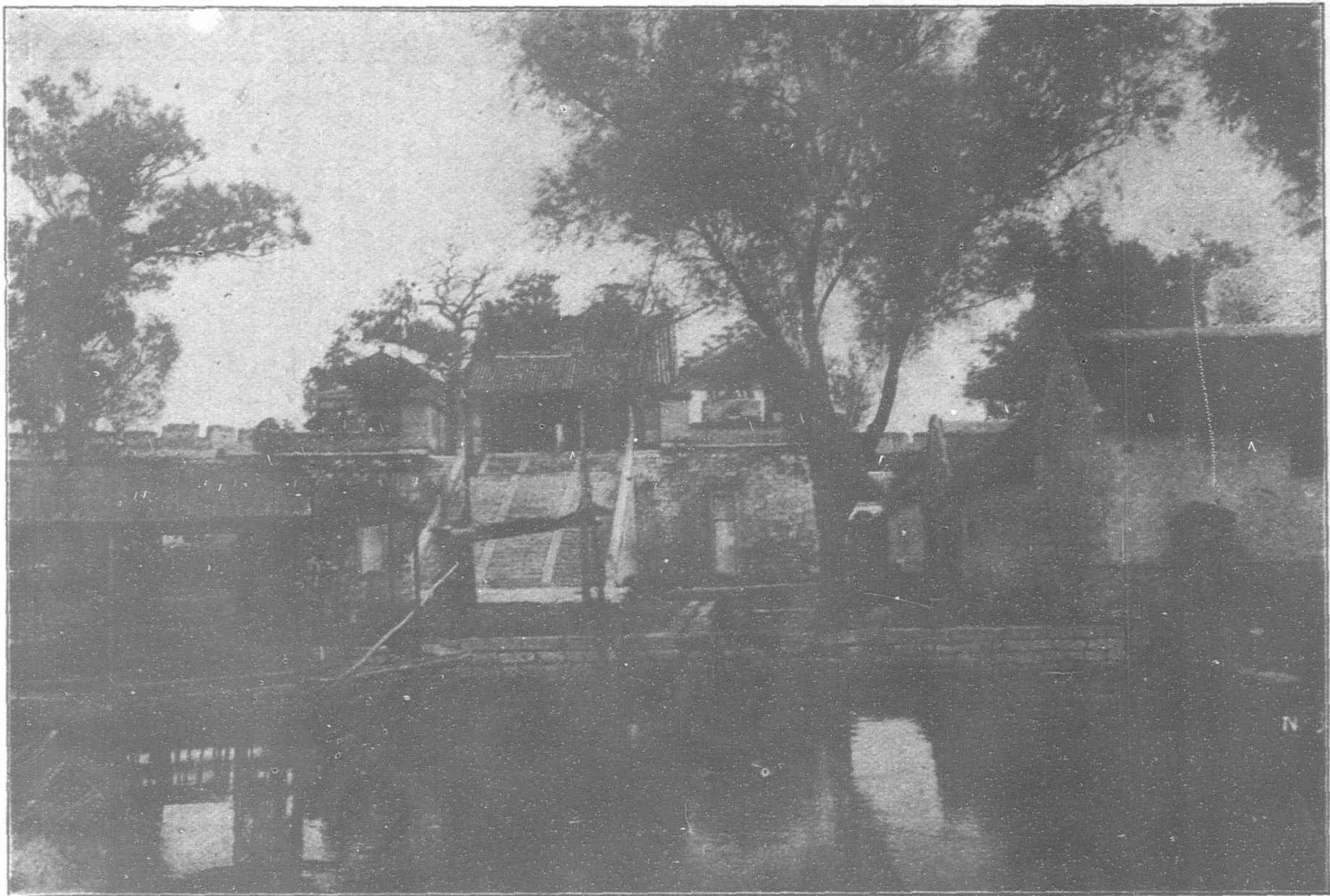
$$3,750 \text{ sq. ft.}$$

$$633,600 \times 3,750 = \frac{2,396,000,000}{104} \text{ cu. ft.} = 23,000,000 \text{ Chinese fang.}$$

20 Turnouts (every 5 miles) 1,000 ft. long and twice the above area.

$$3,750 \times 1,000 \times 20 = \frac{75,000,000}{104} \text{ cu. ft.} = 720,000 \text{ fang.}$$

River at Tatung, that was over two miles long, with an average depth of 35 feet, and width of 20 feet at the bottom sloping to 75 ft. at the top. I was assured by Mr. Chen Shi-lin, the Chinese Assistant Engineer-in-Chief of the line, under whose direction this work was carried out, that the entire excavation was completed at a cost of 25 Mexican cents per fang (104 cu. ft.). There were no foreign engineers or foremen employed on the line, so this statement may be accepted as a fair average of the unit cost of excavation in North China, under competent and honest Chinese supervision. If such men were placed in charge of excavating a new canal from Tsinanfu to the gulf, it is fair to assume that the cost of the work would approximate:



The Lake, Tsinanfu, Temple of the Northern God.

$24,000,000 \times 25 = \$6,000,000$ (Mexican) or say \$2,500,000 Gold. (£500,000).

The difference in excavation costs in North China is strikingly contrasted by comparing the above, with the cost of work conducted under the supervision of the Haiho Conservancy Board at Tientsin. In the December, 1913, issue of THE FAR EASTERN REVIEW was published a full report of the work of this Board, and amongst other items the cost of digging the third cutting by hand was given at the rate of Taels 0.43 per fang. This apparently included extra work which is not clearly specified in the report. In noting this comparison of costs there is no intention of reflecting on the merits or experience of those having charge of either work, but the results are here given, merely to arrive at an intelligent estimate of the possible cost of excavation. It would appear that the cost of the Haiho work was increased by special conditions, and as the work is similar in character to the suggested Hsiao Ching-ho canal, it can also be taken as a precedent. We then have:— $24,000,000 \times$ (Tls. 0.43) or 57 cts. Mex. = \$15,680,000.

These may be taken as the two extremes, the first representing the lowest unit price under honest and competent Chinese management, and the latter as a fair average price paid for similar work under foreign supervision. The unit price for all classes of railway earthworks in all parts of China, under foreign engineers, may be accepted as averaging 50 cts., Mexican per fang. If we assume then that the actual cost in Shantung will rest somewhere between the Chinese unit price of 25 cts., and the foreign supervised work of 50 cts., it is fair to take $37\frac{1}{2}$ cts., as the probable average cost of excavating the canal by manual labor.

$24,000,000 \times .375 = \$9,000,000$ Mex.

To this must be added the cost of land. If we assume a strip of land 400 feet wide, as ample for the canal and the protecting dyke, we have.

$$\frac{633,600 \times 400}{43,560} = 5,800 \text{ acres.}$$

The value of land in Shantung is rather high compared with other sections of China, owing to the dense population. Considering however the character of the land, located within the danger zone of a break in the Yellow River, and the undoubted

power of the Government to impose a reasonable valuation for its expropriation in behalf of the public interests, it is fair to assume that at the outside the cost should not exceed \$300 Gold per acre or say \$120 Mexican per Chinese mow). If we accept this low valuation we have, $5,800 \times 300 = \$1,740,000$ Gold or say \$4,000,000 Mexican as the probable land cost

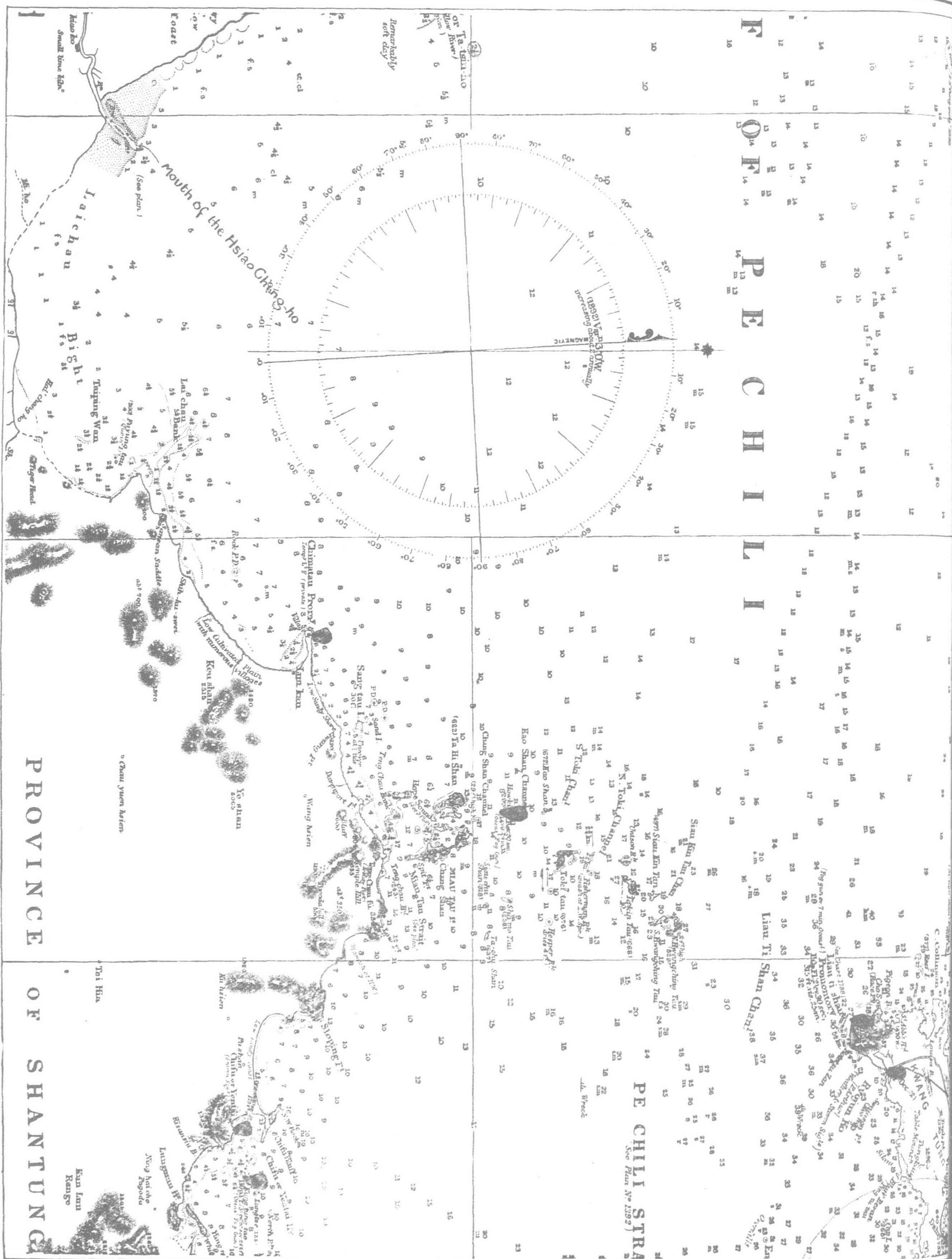
The altitude of Tsinanfu, according to the profile map of the Shantung Railway is 30 meters or 98 feet above sea level. This would give a slope or fall of .8 feet ($9\frac{1}{2}$ inches) to the mile, or rather over the average of some of the larger rivers in China and sufficient to cause a very heavy current. This would call for the construction of at least two locks, whose cost can be roughly estimated at another \$1,000,000 Mexican.

We then have a final rough estimate of the cost of a new ship canal from Tsinanfu to the Gulf as follows:

Cost of land	4,000,000 Mex.
" " excavations	9,000,000 "
" " locks	1,000,000 "



Ferry-boat on the Hsiao Ching-ho.



NAVIGATOR'S CHART OF GULF OF CHIH LI, ILLUSTRATING RELATIVE POSITIONS OF DAIREN (Dalny) CHEFOO, LUNGKAW AND MOUTH OF THE HSIAO CHING-HO.

Cost of dredging bar; offices; warehouses, &c. (rough) 1,000,000 Mex.

Mexican \$15,000,000

or \$7,000,000 Gold. (£1,400,000)

We have made this rough calculation merely to indicate what the probable cost would be if the Chinese undertook to complete such a task without the assistance of machinery. It is well understood that Chinese manual labor under native supervision in work of this nature, is almost as economical as the cost of purchasing and operating modern excavating machinery. If steam dredges or excavators are employed that would deliver the material on the bank direct without extra handling, the above cost could be materially lowered. The cost of similar work on the Haiho Conservancy at Tientsin with a modern dredging plant, allowing for depreciation, is given at Taels 0.27 (.36 Mex. cts.) per fang, or 4 cents (Gold) per cu. yard. This figure could, however, be still reduced if a large modern shore delivery excavator is employed. Work of this kind is carried out abroad at an average cost of 2 cents gold per cubic yard, or 16 cents Mexican per fang. Cost of plant, depreciation and other charges would raise this to 20 cents per fang, or a saving of $17\frac{1}{2}$ cents per fang over hand labor. ($24,000,000 \times 20 = 4,800,000$ a reduction of \$4,200,000 on the excavating item of the preceding estimate, lowering the total to \$10,800,000 Mexican.

In other words the Chinese Government can create an entirely new ship canal 120 miles long, making a seaport at Tsinanfu, with a minimum expenditure of \$10,800,000 (Mexican) working with a modern excavating plant, or a maximum of \$15,000,000 employing Chinese labor and methods.

If we abandon this idea as too costly (and it has only been put forward for the sake of comparison) and attempt to estimate the cost of widening and deepening the existing channel of the Hsiao Ching-ho, we are handicapped at the outset by a lack of accurate knowledge of the condition of this river. However we can make an approximate estimate. The cost of the land would be reduced by at least one third, lowering this item to \$2,700,000. The actual amount of dredging may also be safely assumed to be one-third less, while the other items would remain the same. If the dredging can be arranged so that the material will be delivered on the banks direct, the cost of this work can be fairly and accurately estimated, from actual experience elsewhere.

If we allow one-third less material to be removed from the existing channel, than in the preceding estimate, we have 16,000,000 fang as the amount to be handled. The ordinary "Priestman" or "Kingston" type of grab or bucket dredges, handling about 2,400 yards per day (600 fang) will do this work for an average of 4 cents (Mexican) per cubic yard deposited in the barge alongside. This includes cost of plant, (dredgers and barges) depreciation, interest, coal, repairs, and operating charges. Allowing 350 working days in the year, one of these dredges will handle 210,000 fang in a year or complete the entire work in 75 years. It would take 19 of these machines to complete the task in four years. The cost of one of these dredges delivered in China would be about £900. The cost of distributing the material by hand from the barge to the dyke, would be about 2 cts. Mexican per cu. yard, or a total of 6 cts. Mexican per yard, or 24 cts. per fang.

The estimate for the canal on this basis would be:

Dredging:	
16,000,000 \times .24 =	\$3,840,000
Land	2,700,000
Locks, dredging Bar, warehouses, &c. ..	2,000,000
Mex.	\$8,540,000

The item of dredging might be still further reduced by employing machines of greater power and capacity. The costs of dredging in Europe and America vary to such an extent, according to the nature of the material, that no fair comparison can be made with work in China. However, it is fair to assume that with Chinese labor, and proportionate decrease in other expenses the cost of dredging in China, where no barges are

employed, would average about 2 cts. Gold per cu. yard, or 16 cents per fang.

The only accurate guide we have as to dredging costs in China, is the published report of Mr. Hugo von Heidenstam, the director of the Whangpoo Conservancy Works. If we follow his estimates, eliminating the pumping plant, tugs, barges, &c., we can arrive at a fair idea of what the work of the Hsiao Ching-ho might be accomplished for with the larger and more powerful dredges. Taking as a basis a bucket dredge with a capacity of 600 cubic yards per hour, working double time or 20 hours per day for 250 days in the year, fitted for shore delivery, one dredge would handle 3,000,000 cu. yards or 750,000 fang in one year. It would take four of these dredges to handle the 16,000,000 fang in five years. If we accept Mr. von Heidenstam's figures as a basis, the cost of the Hsiao Ching-ho Canal would then be approximately:

(All items \times by 5 to cover 5 years expenditures)

4 Bucket Ladder Dredges, actual capacity in sand, 600 cubic yards per hour, dredging depth 30 feet, with shore delivery arrangement. Delivered afloat at the mouth of the Hsiao Ching-ho @ Tls. 200,000 each	Tls. 800,000
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STAFF AND CREWS, PER YEAR:

General: One Superintendent for the four dredges and plant	Tls. 7,000 \times 5	35,000
General: One mechanical Engineer to supervise the 4 dredges		35,000
4 Dredge Masters (10 hrs.) @ Tls. 2,500 each per year = Tls. 10,000 \times 5		50,000
4 Assistant Dredge Masters (10 hrs.) @ Tls. 1,500 per year = 6,000 \times 5		30,000
10 Sailors	} Single Crew. Tls. 3,000 per year.	
3 Engineers.		
3 Firemen.		
Double shift: 3,000 \times 2 \times 5		30,000
COAL; 250 days, working 20 hrs. per day, using 15 tons per day for each dredge = 3,750 tons \times 4 \times 5 = 75,000 tons @ Tls. 7 per ton		525,000
RENEWALS; 5% on cost of plant per year Tls. 40,000 \times 5		200,000
STORES; Tls. 400 per month each dredge = Tls. 4,800 \times 4 \times 5		96,000
Administration (?) Tls. 30,000 per year \times 5		150,000

Total cost for 5 years Taels 1,916,000

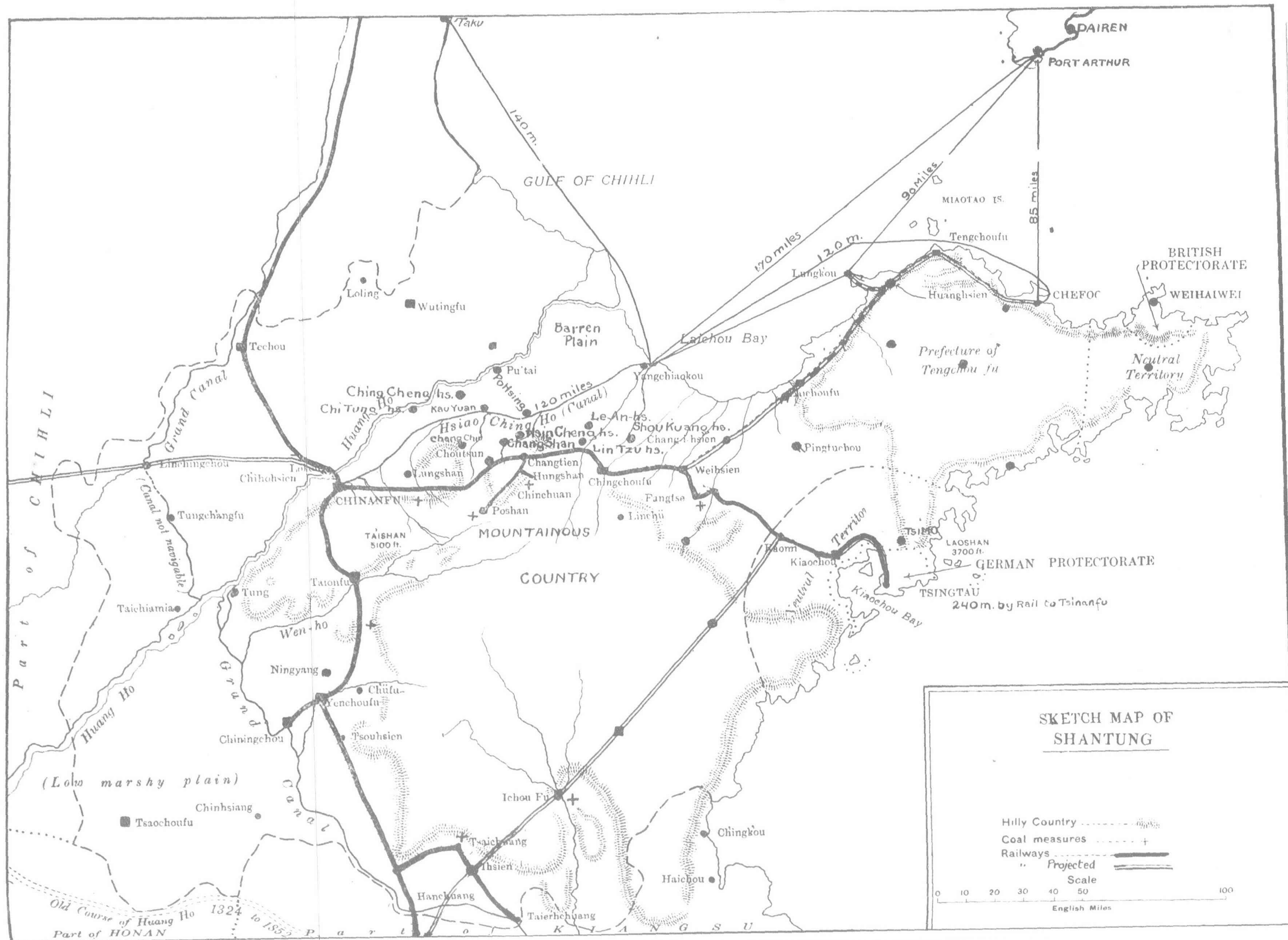
or say \$2,500,000 Mexican as the cost of dredging the 16,000,000 fang, (or 15 $\frac{2}{3}$ cts. Mexican per fang) and delivering the material on the bank. To this must be added the labor cost of handling and spreading the material uniformly along the protecting dyke, and which may be estimated at five cents Mexican per fang for about one half the material:

8,000,000 fang \times .05 = \$400,000.

This then gives us the following totals:—

Dredging cost	\$2,500,000
Spreading by hand on dyke	400,000
Land	2,700,000
Locks, Dredging Bar, Offices, Warehouses, &c.	2,000,000
Mex.	\$7,600,000

At the expiration of the main contract, one of the dredges can be retained for the upkeep of the canal, and the other three disposed of, or utilized elsewhere. Assuming their value after five years of work at one half the original cost, this would decrease the above total by Tls. 300,000. There are other items which would have to be considered, such as bunding, stone facing of the dykes in places, and other extra work and contingencies which cannot be accurately determined, without a precise knowledge of what is necessary. Allowing however for all these extras, contingencies, interest on capital, &c., it is fair to assume that \$10,000,000 Mexican will be ample to cover all expenditures, for the construction of a ship canal into the heart of Shantung Province, and convert the old inland



provincial capital at Tsinanfu into a modern, wide-awake, prosperous seaport.

Is the work worth the expenditure? In eight years the Whangpoo River Conservancy at Shanghai has cost Tls. 8,778,172, and the Haiho Conservancy Board at Tientsin has expended Tls. 4,782,904. All these funds have been raised by special loans, secured on tonnage dues, and by special grants and taxes on commerce. Foreign trade and shipping has paid the toll, without any severe strain on the revenues or treasury of the Chinese Government.

From the purely practical commercial viewpoint, judged simply on its merits as a cold business proposition, is it worth \$5,000,000 gold to create a seaport at Tsinanfu? Would it pay? This can only be accurately answered after careful study of the advantages to be derived. There seems, however, to be no good reason to doubt the commercial success of such a scheme.

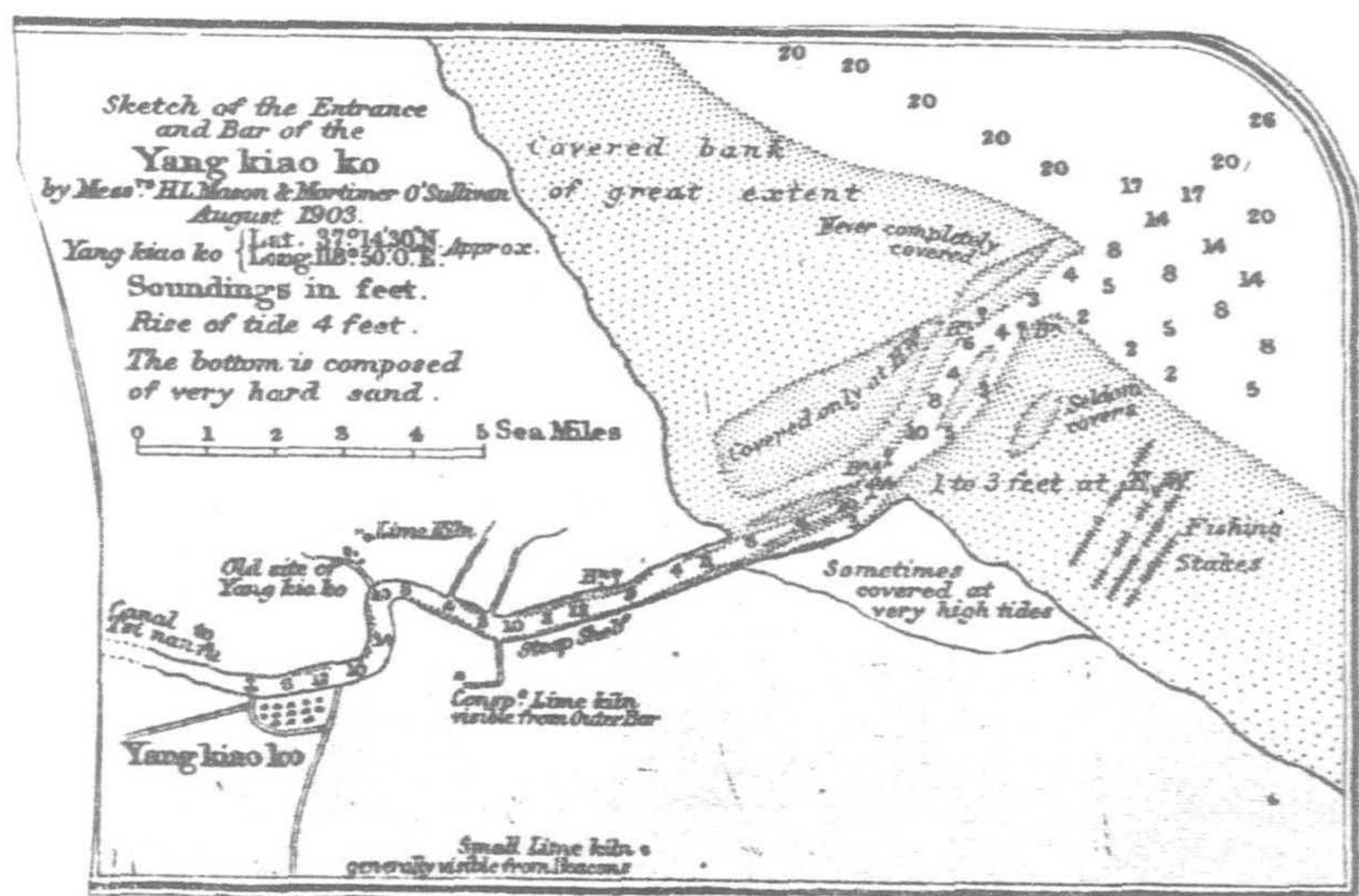
From the political viewpoint is it worth while?

For the last sixteen years, the provisions of the Kiaochow Convention have erected a ringed fence around the province of Shantung, effectively excluding all nations other than Germany, from participating in its industrial development. Shantung has been a closed sphere of German influence, where the Open Door declarations in respect to industries have failed to penetrate. If China desired foreign capital to develop any of the resources of the province, the stipulations of the Kiaochow Convention compelled her to turn to Germany for assistance. If the scheme failed to meet with the approval of Germany, and in any way menaced her dominant position in the Province, the assistance would be withheld, and strong opposition and pressure brought to bear to prevent China from raising the capital required elsewhere.

Equal trade privileges were enjoyed by all nations, but the actual development of industries with foreign capital and supervision depended on the consent and good will of Germany. Naturally any scheme which tended in any way to diminish the commercial importance of Tsingtau could expect little encouragement from Germany. Under a 99 years lease, Tsingtau was her base, and from this point the province must be dominated through the operation of her railway line. The hinterland of Shantung in the immediate vicinity of Kiaochow is poor and sparsely populated. Not until the town of Weih sien is reached, 110 miles distant, does the country begin to show signs of prosperity and provide products for profitable railway carriage. The heart of commercial Shantung is not really reached by the railway until it arrives at Ching Chow-fu, another 40 miles distant. From this point the railway enters into the productive and populous district of the province, where the bulk of the freight is collected for transportation to the port at Tsingtau. A glance at the map will disclose that sixteen of the largest cities of Shantung are located in the triangle formed by a line drawn from Weih sien to Tsinanfu as the southern base (120 miles), with the Yellow River from Tsinanfu to its mouth as the northern side (120 miles), and a line from the mouth of the Yellow River to Weih sien (60 miles) as the other side. The railway skirts the northern slope of the hilly and mountainous country. South of the railway are few towns of importance, and except the mineral output of the mines there is little traffic for the railway. The real commercial zone of the railway therefore lies in the district formed by the above triangle with its sixteen Hsien towns and two Fu cities. It will also be clearly recognized that the commercial strategic point is located at Weih sien. It will also be noted that

all of this district is served by the many streams flowing into Laichow Bay, and ten of the cities are either served direct by the Hsiao Ching-ho, or come within its distributing sphere.

A rudimentary insight into commercial strategy, indicates that if the Chinese succeed in constructing the proposed Chefoo-Weih sien railway, it will tap the German line at the latter point, and divert a proportion of the traffic from Tsingtau to Chefoo. When it is remembered that one half the freight receipts of the German line are derived from the transport of its own coal from the Fangtse and Hungshan Mines, it is clear that the trade of the province follows some other outlet. The opposition of Germany to the construction of the Chefoo-Weih sien line, is manifestly influenced by a desire to maintain at all hazards the trade supremacy of Tsingtau, against competition in the only profitable commercial zone of the Province. The German line has an undisputed transportation monopoly in the 110 miles stretch from Tsingtau to Weih sien, but this is of little practical value as there are only three towns located within this economic distributing zone. The point of profitable traffic and real competitive center is located at Weih sien. A railway from this point to Chefoo, via Lungkou would therefore impair the value of the German line, and Tsingtau's position could only be maintained by granting discriminating freight rates on through traffic. Menaced by the probable future construction of this line, the Germans have also seen much of the trade diverted from their railway by the cheap river traffic in the profitable competitive zone. As already indicated, many light articles of export



between Tsinanfu and Chefoo are carried through the Hsiao Ching-ho and across the Gulf. The 240 miles of Gulf and river passage between Chefoo and Tsinanfu are naturally cheaper than the 240 mile railway haul from Tsingtau. This competition extends to every one of the 13 Hsien towns and the three Fu cities (including Lai-Chow-fu) in the triangular district. It is clearly evident then, that for the protection of the railway profits, the Germans would naturally obstruct any measure for the improvement of the Hsiao Ching-ho and the other waterways. Germany's political and commercial strength in Shantung necessarily depends largely on her undisputed control of the main trade route. Any new railway line, or improvement of the rivers, would admit serious competition with her own railway in the real traffic zone and undermine the commercial prosperity of the line. The political position hinges on being able to enforce the commercial monopoly. This paramount political position can be maintained only by excluding the commerce of other nations from a free entrance into the hinterland of the Province through other ports. Germany's position from a railway point of view is therefore secure and cannot be undermined unless a waterway is improved and opened up to international trade and commerce, under the Inland Waters Steam Navigation Rules. The improvement of existing waterways cannot be objected to by Germany, Japan or any other Power. Unless other nations are permitted to establish themselves in Tsinanfu and are freed from the railway monopoly through the opening of a waterway from that point to the sea, it is clear that so long as

SKETCH MAP OF SHANTUNG

The sketch map of Shantung on the opposite page, fully illustrates the strategic commercial importance of the suggested Hsiao Ching-ho canal, and its relation to the Shantung and Chefoo-Weih sien Railways. The map clearly indicates the commercial importance of the triangular competitive district west of Weih sien, and accentuates the necessity of the canal as the only means of restoring China's rights in the Province, preserving the Open Door, and reviving the maritime importance of Chefoo. The canal practically parallels the Shantung Railway in the competitive district, and all the towns and cities can be more economically and efficiently served from Chefoo, by water, than by rail from Tsingtau.

Shantung is dependent upon railways for transportation to the coast, the province will remain under the political heel of Germany or some other Power during the unexpired period of the lease, or for the next eighty three-years. From the commercial standpoint therefore, the improvement of the Hsiao Ching-ho is imperative for the advancement of trade, and release from the monopoly of transport held by the Shantung railway. Chinese and other merchants are entitled to this protection to safeguard the unrestricted enjoyment and advancement of their legitimate trade rights menaced by the railway monopoly. From this viewpoint the expenditure of \$5,000,000 is amply justified.

From the political viewpoint, as affecting the maintenance of the Open Door, and China's sovereign rights, the creation of this waterway is a sacred obligation imposed on the authorities in whose hands the nation has confided its interests. The reasons why the Government should give prompt and serious consideration to this matter are overwhelming. For sixteen years this remedy has been ever at hand to neutralize the province from the provisions of the Kiaochou Convention, and for sixteen years Governor after Governor has administered the affairs of Shantung and trod the traditional official path of promotion to the higher posts at Chihli and Peking, and did not hit upon this way to liberate the province from foreign influence. Yuan Shih-kai, Chow Tse-chi, Sun Pao-chi and other high officials directing the affairs of China at this time, have all passed through the ordeal of governing Shantung, and maintaining China's rights against the full current of German influence. These most trusted and tried defenders of China's sovereignty have now before them a logical and feasible method to counteract the insidious development of foreign designs for the domination of this province. It is not too late to make some effort towards rectifying the mistakes of the past. The fortunes of war, through which Japan succeeds, for the present at least, to Germany's rights in Shantung, must compel China to throw off her lethargy, and awaken to a full realization of the dangers menacing her liberty of action. In view of all these facts, is the expenditure of \$5,000,000 Gold justified to convert the Hsiao Ching-ho into a navigable stream, and create a seaport at Tsinanfu? Is it worth \$5,000,000 to effectively neutralize the province of Shantung, so that China's sovereignty can be upheld unimpaired and the door of equal opportunity maintained open for all nations? What will be the verdict of posterity on the present rulers of China, if through their indifference this opportunity is lost, and Shantung ultimately passes under the heel of a foreign overlord? Who can oppose or protest against the execution of such an obviously necessary improvement? Germany? She has no right to oppose the improvement of a waterway for the advancement of commerce. The Kiaochou Convention may be extended to cover such a scheme, if a foreign loan is sought. On the other hand it is well within the financial limits of the Government to proceed with this scheme, with its own funds. All that is required is \$2,000,000 Mexican a year for five years. Surely between Peking and the Provincial Government at Tsinanfu, aided by the merchants whose trade will be benefited, and the property holders whose land values will be increased, it should not be difficult to devise ways and means to raise \$2,000,000 per year for such a worthy, commercial and highly patriotic work of public utility. Germany cannot fairly interfere or oppose this.

For the present, serious opposition can therefore only emanate from Japan, who has taken over Germany's rights. If Japan is sincere in her declared intentions to restore Kiaochou to China, and is innocent of any political designs in Shantung, then her commercial and trade interests will be materially advanced by the construction of such a waterway, as from her base at Dairen, her light draft coasting steamers would enjoy the advantages of the canal, and enable her to maintain a legitimate and honorable lead over the traders of all other nations. It may then be taken for granted that any serious opposition to the scheme put forward by Japan, would be based on motives other than commercial.

We have viewed the question from the commercial, economic and political standpoints and we find that the only possible objection to it might arise from a veto by Japan, and this would imply intentions towards China in direct contradiction to her pledged word, and therefore cannot be entertained. If Japan does harbor any ulterior political designs in Shantung, the case

of the Chinchow-Aigun railway is an ample precedent to convince other nations that she has the power, and will to exercise it, to protest against the execution of any scheme menacing her commercial and political supremacy by strengthening China's sovereign rights. Therefore if her attitude in Manchuria should be taken as a criterion as to what we may expect in Shantung, it is a foregone conclusion that notwithstanding the undoubted commercial benefits her trade would enjoy by the opening of the Hsiao Ching-ho, she would oppose the scheme to preserve unchallenged her political supremacy in the Province. As nothing has occurred to date, for the most hostile critic of Japan to doubt her honesty and good intentions in dealing with the situation in Shantung, we must assume that she will hand Kiaochou back to China, and that China will be called upon to recognize the friendly act of Japan by substantial rewards in some other quarter. The lease of the Kwangtung Peninsula, has only 8 years to run, when China has the right to again take possession after paying Japan for the expenditure on improvements. Is it probable that Japan would jeopardize her prospects of an extension to the lease of the Kwangtung Peninsula, for the sake of holding Kiaochou? If China's integrity is to be preserved in accordance with all the solemn agreements to this end, Japan must court her friendship, if her program in Manchuria is to be carried out. Any other supposition would imply that Japan intends to retain Kwangtung by force, if China refuses to extend the lease, and this in turn amounts to a virtual seizure of China's territory, and then, partition. Is it not better to credit Japan with honorable intentions, than to doubt her at this time? Is it not clear that Japan has everything to gain by adhering to her pledged word in restoring Kiaochou in return for an extension of the Kwangtung lease? Is it not clear that Japan can advance her economic interests in Shantung more effectively through Dairen, Lungkow and the suggested ship canal, than through the retention of Kiaochou, and subjecting her commerce to the 240 mile railway haul in competition with the cheaper 240 mile water route from Dairen to Tsinanfu?

We can now turn to the last and most important explanation of why the canalization of the Hsiao Ching-ho should be undertaken at once. No arguments can prevail against the following reasons based on broad humanitarian grounds for the preservation of life and property and the conservation of the district itself. This leads us up to a consideration of the ever present menace of "China's Sorrow," the great turbulent, rolling mass of liquid mud known as the Huang-ho or Yellow River. The vagaries of this river and the many catastrophes caused by the breaking of the dykes, in which whole cities, towns and villages have been obliterated and hundreds of thousands of lives swept to death, without counting the enormous property losses, has been chronicled time and again. A study of Captain Tyler's "Notes on the Yellow River," will convey an idea of the standing menace to the lives and property of millions of people, peaceably pursuing their vocations within the shadows of an ever present calamity. Living on the edge of a volcano is no more dangerous than living in the zone of destruction along the course of the Yellow River. The uncertainty of human life is identical.

Captain Tyler points out that the bed of the Ta Ching-ho, usurped by the Yellow flood in its last migration in 1854, has risen 18 feet in 20 years, or at the rate of over 1 foot each year. Writing in 1906, he states that the Yellow River cannot maintain its present bed for another 20 years, if nothing better than existing methods of control are used. He adds, "It becomes therefore a matter of anxious interest where, under these conditions, the river will go when it takes up its new bed."

Where will it break? It is inevitable. Over 1,000,000 taels are annually expended to keep it in its present channel, but the efforts of puny man cannot alter the inevitable course of nature or hold back the flood of liquid mud which the great lowess country beyond feeds into the maw of the resistless flood, and which year by year raises the bed of the river above the surrounding country. The break will come, but where?

If the break occurs in the right bank of the Yellow River below Tsinanfu, the waters will flow to the south, and destroy the channel of the Hsiao Ching-ho, and wipe out of existence the many prosperous cities and towns in that district. This

possibility was the one which the Chinese authorities had in mind when Captain Tyler was ordered to conduct investigations and make his report. There is no water connection between the Hsiao Ching-ho and Yellow River and the flood would spread over the entire section without finding a channel to the sea. What is the obvious method to employ to protect the Hsiao Ching-ho and the cities situated on its banks and tributaries? A high protecting dyke thrown up on the northern bank of the Hsiao Ching-ho and carried around to the main Yellow River dyke at Tsinanfu, would serve as a

soil deposited in one continuous bank protecting its northern shore. Is not this the logical and practical solution to the ever present menace of "China's Sorrow" in this district of Shantung? The excavated soil from a new canal, or the dredged material from the existing channel is thus profitably utilized in erecting the necessary barrier or protecting dyke against the break in the Yellow River. China effectively safeguards the lives and property of millions of her people, and creates a new international passage for the trade of all nations. To sum up; the excavation



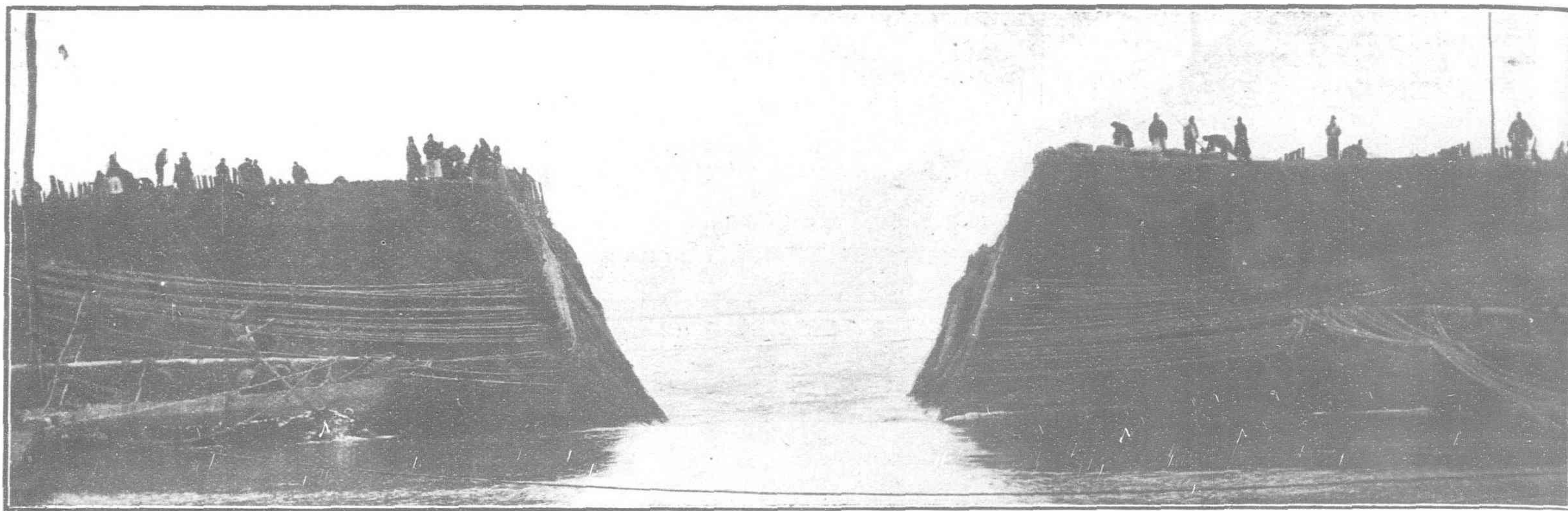
A WONDERFUL ILLUSTRATION OF CHINA'S LATENT STRENGTH.

As far as the eye can see, myriads of toilers are repairing a break in the Yellow River dyke. This demonstrates better than words, China's ability to dig the canal which will convert the inland capital at Tsinanfu into a modern seaport and effectively restore her political power in Shantung.

formidable barrier to the flood waters of the Hoangho, escaping through a break in the southern dyke. In effect this is the one sure and effective safeguard for this region.

Suppose a brand new canal 120 miles long, 200 feet wide and 25 feet deep is dug from Tsinanfu to the sea, and the material excavated is all banked up on the northern shore of the canal; this will create a protective dyke to the new canal 25 feet high by 300 feet wide along its whole length or 30 feet high by 160 feet wide, a most effective protection not only to the canal, but to the countryside lying to the south of the barrier. Or let us suppose the existing Hsiao Ching-ho straightened and dredged to the same depth and width, and the

of a new canal, or the improvement of the existing one, is a boon to foreign and native shipping and trade, it frees the province from the monopoly of the Shantung Railway, it nullifies the provisions of the Kiaochow Convention, and neutralizes the province and guarantees the maintenance of the Open Door and China's sovereignty, and lastly it acts as a great humanitarian public work, safeguarding the lives and properties of millions of inhabitants, and preserves a rich district from inevitable destruction. Any one of the points justifies immediate action in carrying on the work, but viewing the project from all sides, it is seen that commerce, navigation, sovereignty, neutrality and humanity combined, demand serious



A Break in the Yellow River Dyke.

consideration by the Chinese authorities without delay. The sooner a competent engineer is employed to make a full report on this scheme, the quicker China can start to work and make up for lost time.

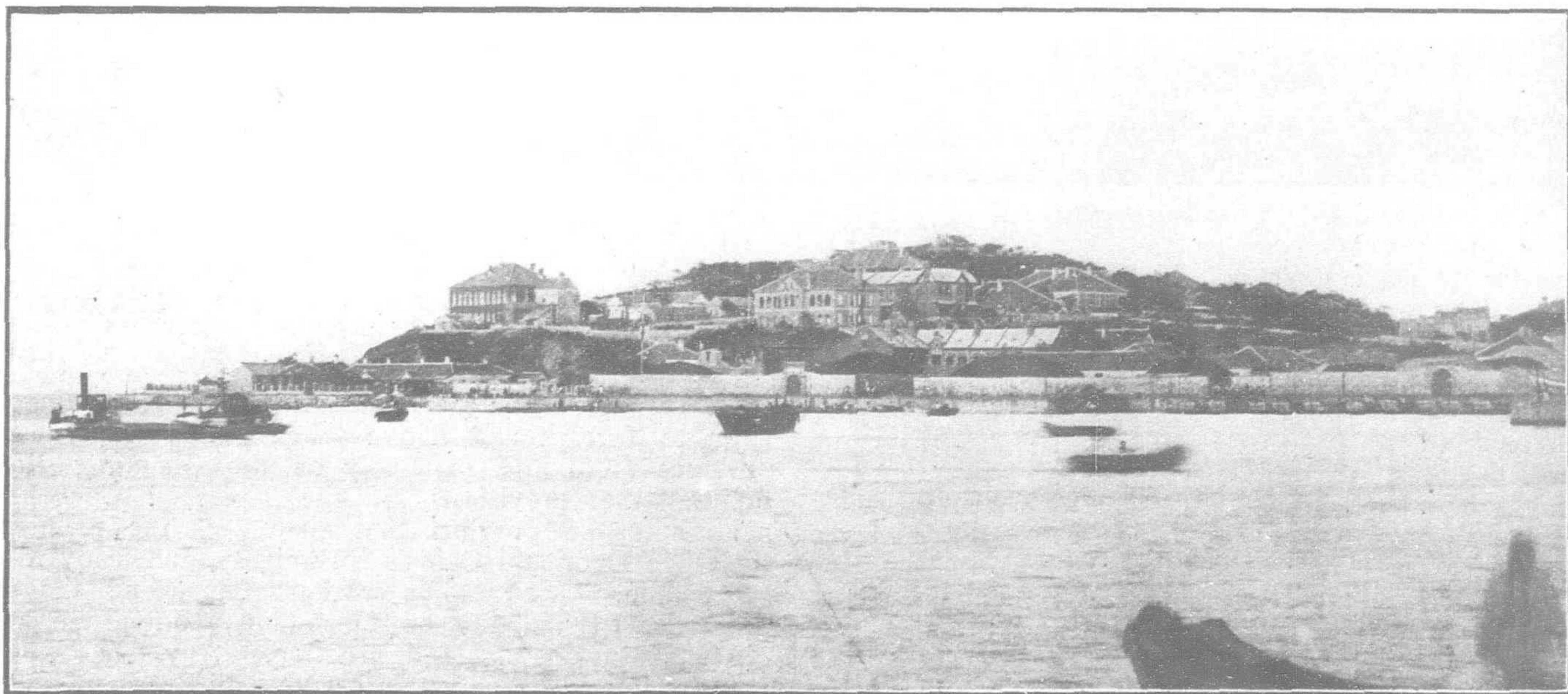
The Suggested Canal and Its Relation to the Port of Chefoo and the Proposed Chefoo-Weihsien Railway.

The one phase of the suggested canal which we have reserved for after consideration, is its relation to the port of Chefoo, and the proposed railway to Weihsien. The canal would undoubtedly reduce the profitable returns from the operation of this railway, to an extent which might possibly lead to abandoning the idea altogether. The Chefoo-Weihsien railway was proposed as the one means of reviving the trade of Chefoo, slowly expiring under the throttling monopoly of the Shantung Railway, which diverted all the profitable traffic of the rich productive district to the German port of Tsingtau.

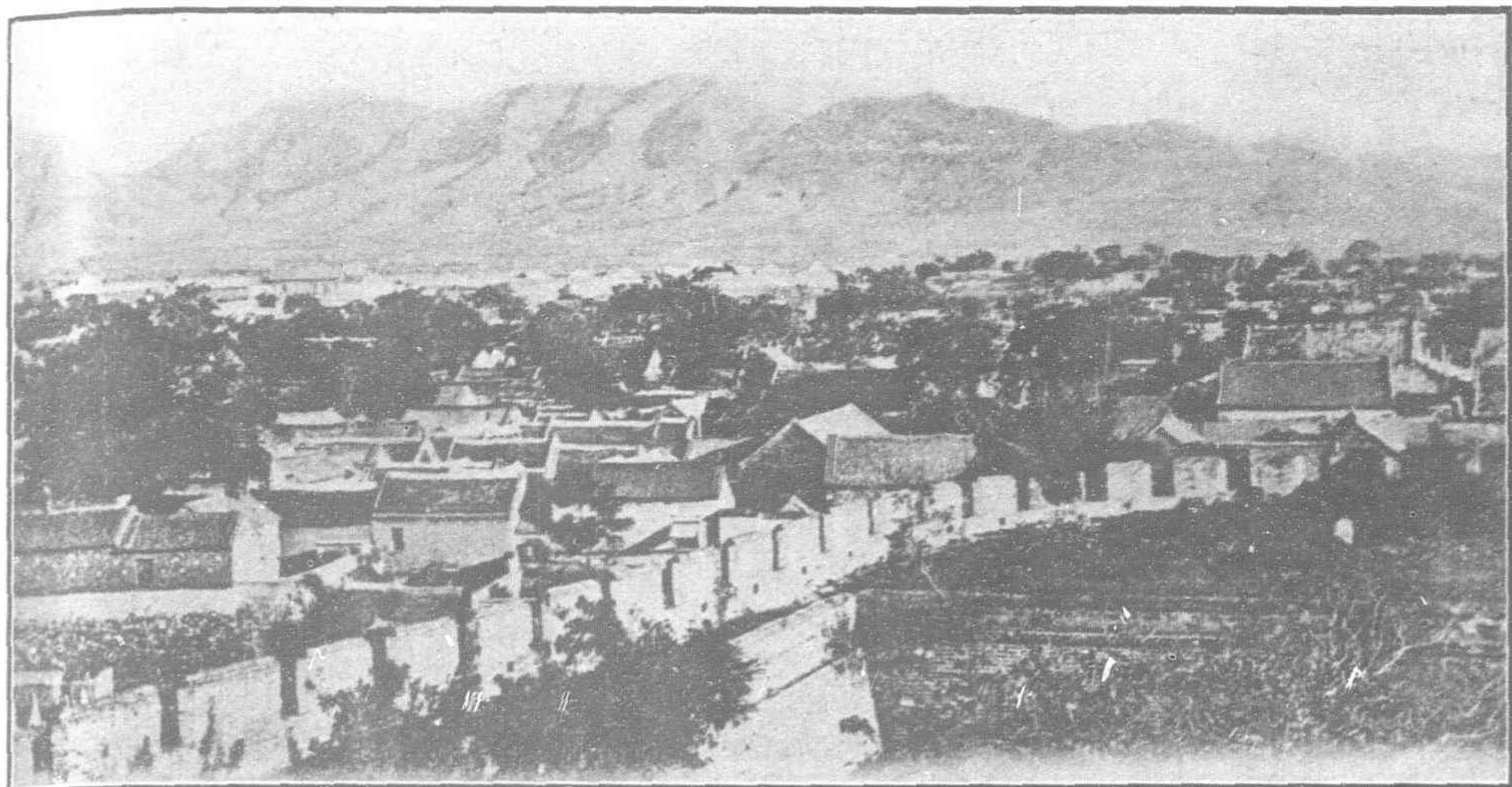
We have pointed out in previous articles in *THE FAR EASTERN REVIEW* that the proposed Chefoo-Weihsien line if ever built, would at its best be only a local road of special importance to Chefoo alone, and of little practical or economical advantage to the general trade of the Province. If the road can be profitably operated on the traffic receipts of the few towns and cities located along the 180 mile fringe of sea coast between Chefoo and Weihsien, its construction is justified, but

if its contemplated profits are to be derived from the transportation of the produce of the great competitive district beyond Weihsien, it is certain that they can only be collected from an excessive freight tariff or additional tax on commerce. It stands to reason that as long as Germany, or any other Power, absolutely controls the main trunk railway, freight rates will be enforced in the competitive district beyond Weihsien, that will operate against shipments via Weihsien to Chefoo. The haul from Weihsien to Chefoo is about 180 miles, and from Weihsien to Tsingtau about 110 miles. Without the imposition of discriminating freight rates, Tsingtau has the commercial advantage over Chefoo, for the railway freight traffic from the rich zone west of Weihsien. Whenever the management of the Shantung railway detected any undue movement of staple products from points west of Weihsien destined for Chefoo, the rates would be manipulated at once in favor of Tsingtau. The misfortune of location therefore militates against any development of Chefoo into a great Chinese shipping port for the control of the Shantung market through railway connections. Chefoo's sphere of commercial activity is restricted, and under the most favorable conditions cannot extend beyond the limits of the mountainous district of the Shantung promontory. A line drawn from Lai Chou-fu eastwards to Haiyang-hsien delimits her zone of trade influence, and in this confined area, she must compete with Weihaiwei and Lungkow as open ports for foreign shipping.

The proposed railway would undoubtedly have a most stimulating effect on the local trade of that district between



The Port of Chefoo.



View of Tsinanfu.

Weihhsien and Chefoo, but with Japanese interests entrenched in and controlling the port of Lungkow, located at the center of the line, it is clear that the latter would divert all the Japanese trade to and from the interior into their stronghold, and employ their own subsidized steamers for carrying the exports to Dairen, Korea or Japan. It will be seen therefore, that the construction of a ship canal from Tsinanfu to the Gulf would not materially

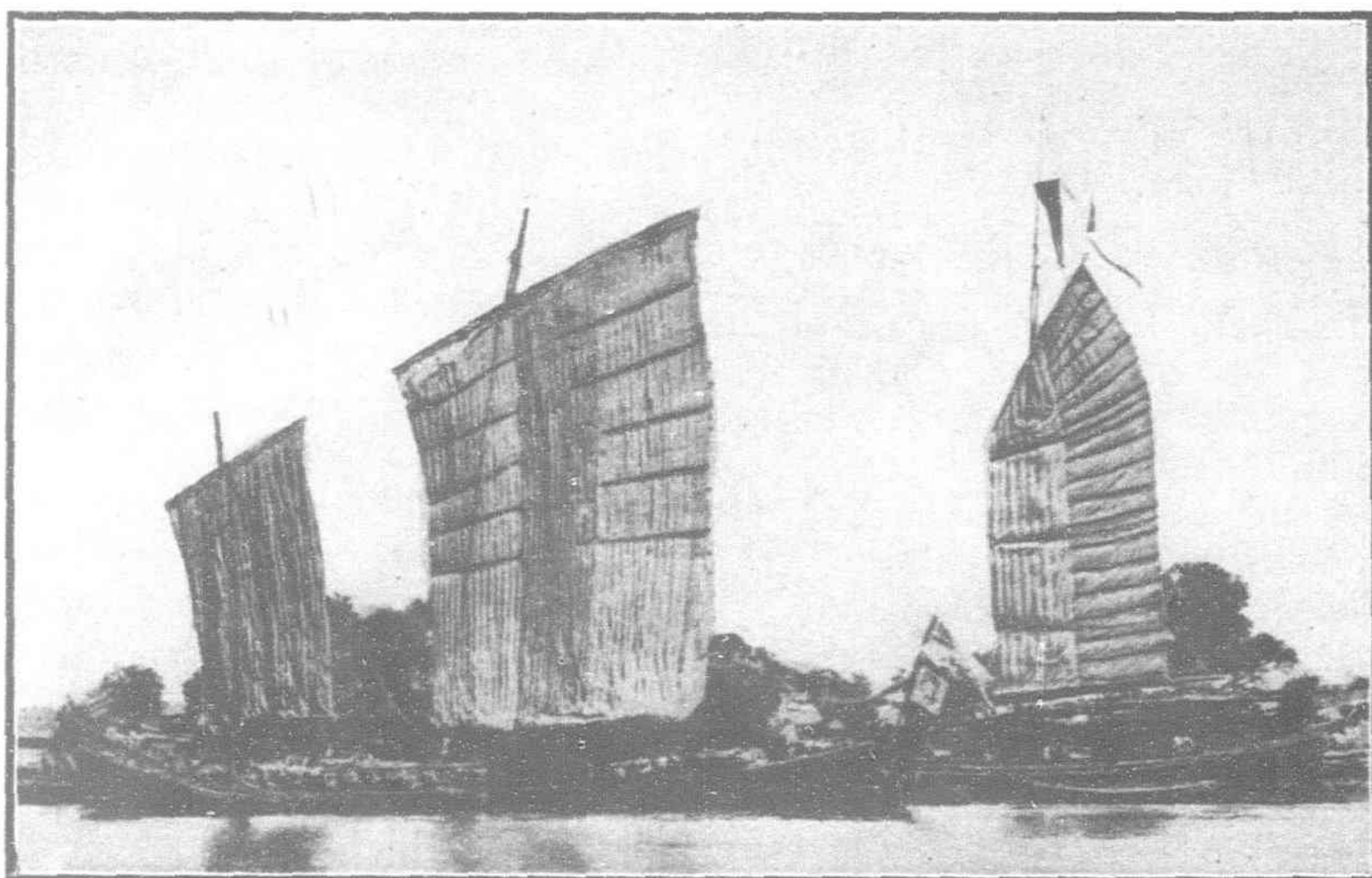
affect the future railway traffic situation of Chefoo. The railway could not assist Chefoo to secure the coveted business west of Weihhsien. The proposed canal, on the other hand will accomplish what the railway is powerless to perform. The promoters of the Chefoo-Weihhsien railway and the vested interests of the port, have only been concerned about the future of Chefoo, giving little thought to the interests of the Tsinanfu merchants, who would pay the long railway bill for the maintenance of Chefoo's prosperity. Chefoo wants the railway, and the Chinese Government is willing to pay for it, but how about the other end? Are not the

trade interests of Tsinanfu and the other 13 Hsien and two Fu cities (not to speak of the other towns further inland) of equal or greater importance than the claims of Chefoo. Have not these cities a right to demand the expenditure of a sum to benefit their trade and release them from the present railway monopoly, which would only tax them higher if Chefoo's demand is complied with? The force of the argument rests with the claims of Tsinanfu, Chang-Chin hsien, Tsou-Ping hsien, Kao-Yuan hsien, Po-Hsing hsien, Chang-Shen hsien, Hsin-Ching hsien, Le-An hsien, Lin-Tzu hsien, Ching-Chow fu, Show-Kuang hsien, Ching-Chen hsien and the other towns located in the competitive triangle west of Weihhsien, who are now subject to the railway monopoly. If any money is to be expended in Shantung by the Chinese Government its first duty is to the capital city and the adjacent towns, by constructing an international waterway which will serve them all, and liberate them from the railway monopoly. If Chefoo desires a railway to Weihhsien, local capital should finance it, as it will benefit only local interests, and as far as we can see, it will only be to their advantage to construct the line as far west as Hwanghsien, as beyond that point they are simply spending money for the ultimate profit of the Japanese controlled port of Lungkow. Chefoo has been outmanouvered. First the Germans came and diverted its com-

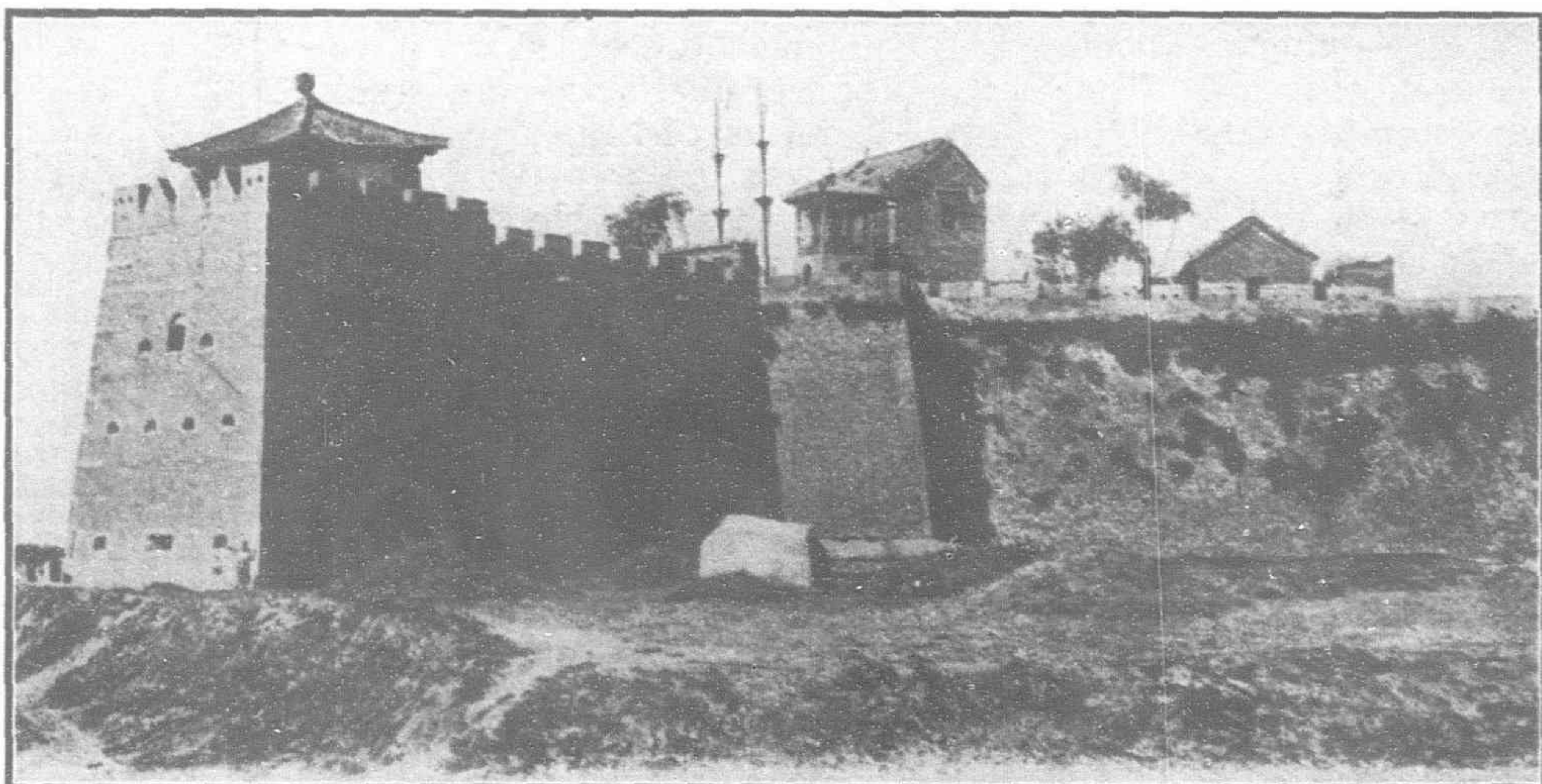
determined to do the one thing they ought not to do. The construction of the suggested canal will do more to revive the port of Chefoo than the railway. Chefoo will always remain the one great deep water port on the Chihli coast under Chinese jurisdiction, where ships from Europe and America will load and unload. It will be the great international distributing point for the Shantung trade, and the port will regain the maritime position

wrested from her by Tsingtau. The lighter draft coasting steamers will make Chefoo the outer deep water port of Tsinanfu, and she will then only have to compete with Dairen. It is already assured that Chefoo, will ultimately lose the Japanese trade, which will pass through Lungkow, but she will make up for that loss through resuming her lost position over Tsingtau. The water distance from Chefoo to Tsinanfu, through the proposed canal is only 240 miles, or the same distance that separates Tsinanfu from Tsingtau by the railway. From Chefoo to the mouth of the canal and the heart of the competitive district is only 120 miles, or the same as the

railway distance from Tsingtau. In fact Chefoo can compete with the railway in all the towns of the productive district with water freights against the railway. It is clear then, that by the construction of the canal the commercial monopoly of Tsingtau will be restricted to the unremunerative district east of Weihhsien, and the control of the richer and more profitable zone, will be restored to Chefoo. Although Japan from her base at Dairen, will have a decided advantage, yet other nations



Cargo boats in the Grand Canal.



The Wall of Weihhsien.

will be placed on the same footing through the deep water port of Chefoo, and the door which was closed through the provisions of the Kiaochow Convention, and the building of the German railway, will be opened again for the equal and honorable competition on all nations. The province will be effectively neutralized, and China's sovereign rights firmly safeguarded.

TELEPHONE SYSTEM AT TSINANFU

The telephone system at Tsinanfu is owned and operated by the Shantung Provincial Government. During 1912 plans were undertaken for the improvement and extension of the System but up to the present time the plans have not been entirely carried out.

The old system had been in use several years and the number of subscribers had increased considerably, it was deemed advisable to change over to a full metallic or two-wire system and at the same time instal new switchboards with increased capacity and of modern type.

During the summer of 1913 the new switchboards were installed and put into service, also a considerable number of new telephones were installed to replace the old ones. The projected change of the outside lines to full metallic or two-wire, was not done entirely and there are a considerable number of the subscriber's lines still working on the single wire system.

For purposes of telephone distribution in Tsinanfu there are two districts and two separate exchanges. One district comprises the territory inside the city walls and the other district comprises that portion of the city outside the walls, which has been assigned by the local Chinese Government as the business and residence district for foreigners, and which is commonly called the Settlement.

The City exchange has an equipment for 300 lines and the Settlement exchange an equipment for 200 lines. At present there are about 450 subscribers altogether. The distance between the two exchanges is about $2\frac{1}{2}$ miles and there is a 15-pair lead covered aerial cable connecting the two exchanges for purposes of trunking telephone calls from one to another.

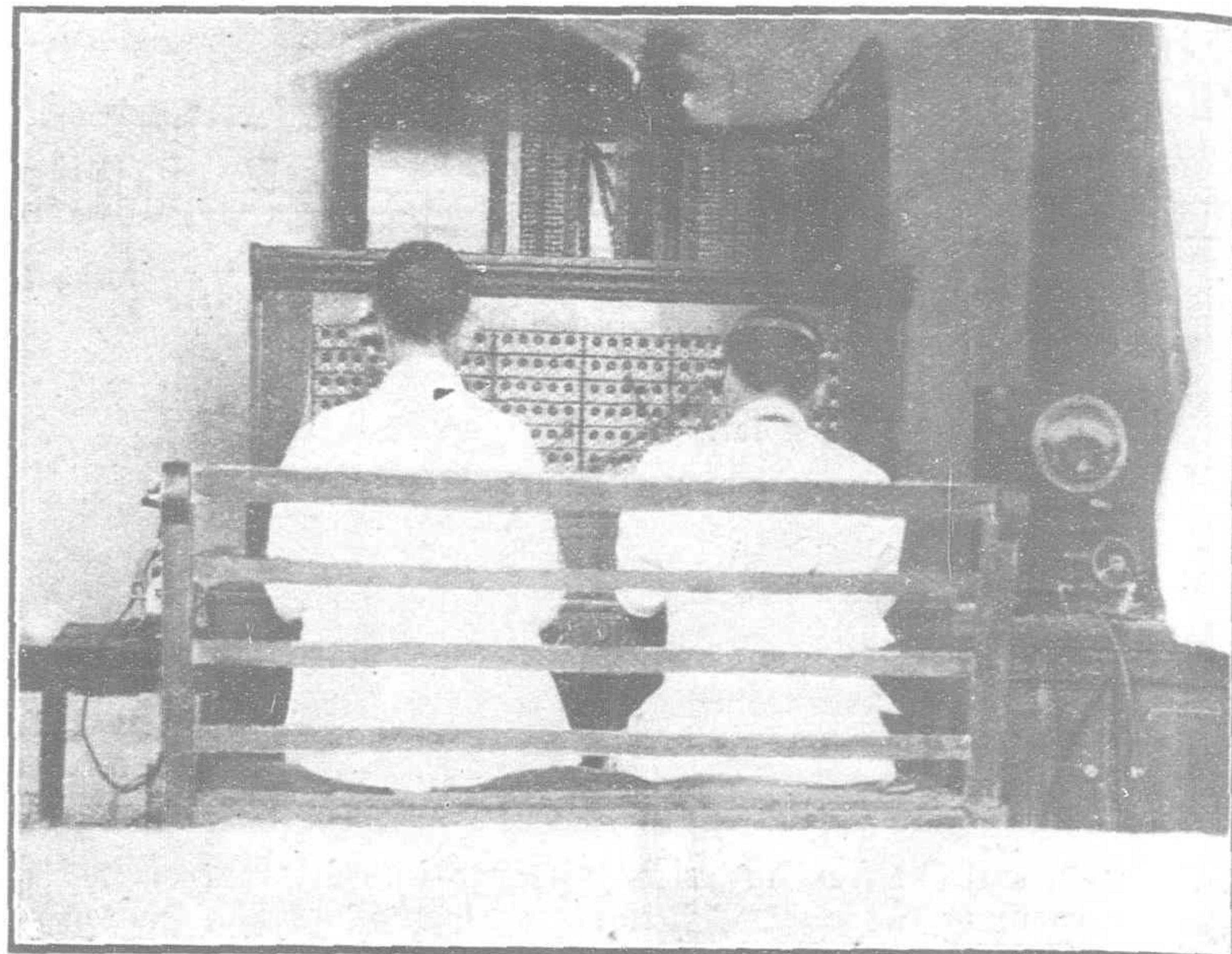
The Switchboards are the Western Electric Company's No. 1250 and No. 1230 type with ball type self-restoring combined jacks and signals. The action of the operator in plugging into the jack to answer a call from a subscriber, automatically restores the signal to its normal position, thus providing for greater rapidity of service on the part of the operator than it is possible to obtain with the old type drops, which have to be restored by hand. Also the construction of the ball type signal is such that it extends out very slightly from the face of the switchboard and therefore cannot be damaged by carelessness on the part of the operator, as could the old type drop with shutter.

Each of the switchboards is equipped for two operators and each operator's position contains 15 pair of cord circuits, for completing connections between the subscriber's telephones. The cord circuits are arranged with ringing and listening keys and with clearing out signals so that subscribers at the end of a conversation can signal the operator that they are finished by ringing off.

The switchboards are so arranged that additional operators' positions and subscribers line equipment can be added in the future as desired. Upon the addition of more positions trunking between them will be effected by means of lamp signal transfer circuits.

At the back of each switchboard is located a No. 1430 type distributing frame. This frame serves as a terminal rack for connecting the outside lines and also serves as a mounting for the protective apparatus, which consists of fuses, heat, coils and lightning arresters which protect the switchboard apparatus from damage which otherwise would be caused by lightning, electric light current or other abnormal electric currents.

All wiring between the switchboard and distributing frame is carried in switchboard cable on iron racks, so that the wiring is very compact and neat. The outside lines are carried in lead covered cable from the distributing frame to distributing boxes located on poles immediately outside the exchange, these distributing boxes are equipped with lightning arresters to provide additional protection against damage from lightning. From these distributing boxes the outside lines are run on poles as



Settlement Exchange, Tsinanfu. Front view of No. 1230 Switchboard, No. 1407 Testing cabinet at the right.

open wires or in lead covered cable as the case may be, to the subscribers' telephones.

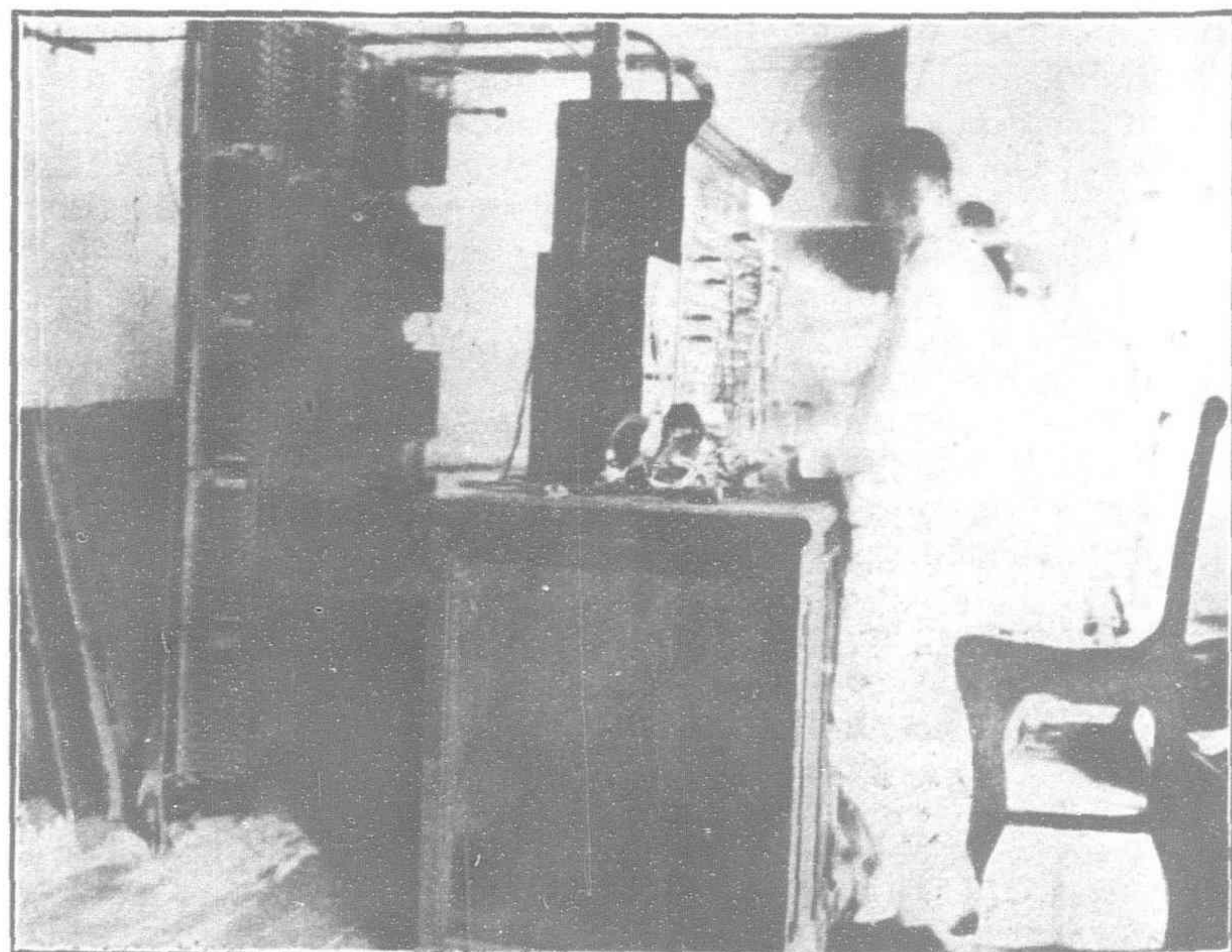
Alongside of each switchboard is mounted a No. 1407 Testing Cabinet for the purpose of making tests on the outside lines and switchboard circuits. With the aid of this cabinet troubles which may occur on the lines can be discovered and located at once, and thus repairs may be carried out without delay or serious interruption in the service.

All parts of the switchboard and distributing frame are easily accessible for inspection and the few occasional repairs and adjustments made necessary at times on account of abnormal conditions, may be effected without difficulty and delay.

The subscribers' telephones supplied are of several different types. Some are wall type with fixed transmitter and others are wall and desk type with microtelephones, so that subscribers tastes may be suited in the matter of types.

Installed in connection with each telephone in subscribers' houses, is a No. 58-A protector consisting of fuses and lightning arresters which serve to protect the telephone from damage which might be caused by lightning and abnormal electric currents.

The switchboards, exchange equipment and telephones were manufactured by the Western Electric Company and supplied through their China agents Messrs. Arnhold, Karberg & Co.



City Exchange, Tsinanfu. No. 1250 Switchboard, showing No. 1430 distributing frame at the back. No. 1407 Testing Cabinet at left of Switchboard.

THE STATUS OF THE SHANTUNG RAILWAY

The seizure of the German Shantung Railway as a spoil of war, and the intention to operate the line under Japanese management, raises the question as to the legality of such a procedure. The argument is advanced by Japanese writers, that as the line is German property operated under the provision of a lease granted to the Imperial German Government by China, it must be considered as belonging to the German Government, and therefore a legitimate object of confiscation.

The real points at issue are clearly defined by a study of the various contracts bearing on the Railway; first, the Kiaochow Convention, second, the Railway Concession granted by the Imperial German Government to the Shantung Railway Company, and third, the Regulations for the Construction and Operation of the railway agreed to by the Chinese Government. These three contracts are reprinted herewith in full.

The Kiaochow Convention and its railway concessions to Germany, define the latter's rights as follows:

I. The Chinese Government sanctions the construction by Germany of two lines of railway in Shantung. The first will run from Kiaochow and Tsinanfu to the boundary of Shantung province via Wei-hsien, Tsinchow, Pashan, Tsechuen, and Suiping. The second line will connect Kiaochow with Chinchow whence an extension will be constructed to Tsinan through Laiwu-hsien. The construction of this extension shall not be begun until the first part of the line, the main line, is completed, in order to give the Chinese an opportunity of connecting this line in the most advantageous manner with their own railway system. What places the line from Tsinanfu to the provincial boundary shall take in *en route* is to be determined hereafter.

II. In order to carry out the above-mentioned railway work a Sino-German Company shall be formed, with branches at whatever places may be necessary, and in this company both German and Chinese subjects shall be at liberty to invest money if they so choose, and appoint directors for the management of the undertaking.

III. All arrangements in connection with the works specified shall be determined by a future conference of German and Chinese representatives. The Chinese Government shall afford every facility and protection and extend every welcome to representatives of the German Railway Company operating in Chinese territory. Profits derived from the working of these railways shall be justly divided pro rata between the shareholders without regard to nationality. The object of constructing these lines is solely the development of commerce. In inaugurating a railway system in Shantung, Germany entertains no treacherous intention towards China, and undertakes not to unlawfully seize any land in the province.

IV. The Chinese Government shall allow German subjects to hold and develop mining property for a distance of thirty li from each side of these railways, and along the whole extent of the lines. The following places where mining operations may be carried on are particularly specified along the northern railway from Kiaochow to Tsinan, Weihsien, Pa-shan-hsien and various other points; and along the Southern Kiaochow-Tsinan-Chinchow line, Chinchow-fu, Laiwuhsien, etc. Chinese capital may be invested in these operations, and arrangements for carrying on the work shall hereafter be made by a joint conference of Chinese and German representatives. All German subjects engaged in such works in Chinese territory shall be properly protected and welcomed by the Chinese authorities, and all profits derived shall be fairly divided between Chinese and German shareholders according to the extent of the interest they hold in the undertakings. In trying to develop mining property in China, Germany is actuated by no treacherous motives against this country, but seeks alone to increase commerce and improve the relations between the two countries.

In addition to securing a 99 years' lease on the territory of Kiaochow, Germany acquired the right to construct a railway from within the leased territory to Tsinanfu. Her rights in the territory were clearly juridical, as the lease provided that Germany should pay for all land expropriated for special purposes. In the matter of the railway, Germany simply obtained a franchise from the Chinese Government, to be executed in due time by a private China-German Stock Company. In other words, the sovereign rights of China were delegated to Germany, to build this railway with private capital, under rules and regulations to be defined by the German Government.

The Kiaochow Convention was signed on March 6, 1898. A syndicate headed by the Deutsche-Asiatische Bank was shortly afterwards organized in Berlin, to incorporate the Shantung Railway Company, and apply for the concession from the Imperial German Government. A study of the concession granted to this Company fails to reveal any indication of

an allotment of official shares set aside, or that any capital was subscribed for by the German Government. On the face of it, the document is an ordinary commercial charter granted to a private Corporation for the construction and operation of a railway, under certain restrictions enforced by all Governments for the proper supervision of a public service corporation. The shares were for public subscription only, and facilities were offered so Chinese capital could participate. The company was organized with a capital of Marks. 54,000,000 divided into 54,000 shares of 1,000 marks each, which were not all paid up until 1904. Certain founders' share were set aside for the promoting syndicate headed by the Deutsche-Asiatische Bank, and in which the German Government does not appear, which shares have the right to an important participation in the profits. The distribution of profits is fixed under the articles of incorporation as follows:—

Five per cent of the profits are placed to a reserve fund, until this reaches a tenth of the capital (Marks. 5,400,000), another five per cent is set aside for special reserve, and then a sufficient sum to pay a dividend of five per cent on the share capital. If any surplus exists after providing for the above, and after deducting five per cent for the Board of Directors, the Government of Kiaochow is entitled to receive the following payments: If the dividends of the Company exceed 5 per cent of the paid up capital, the Government of Kiaochow receives five per cent of any surplus between 5 and 7 per cent; 10 per cent of any surplus over 7 to 8 per cent; 25 per cent of any surplus over 8 to 10 per cent; 33 $\frac{1}{3}$ per cent of any surplus over 10 to 12 per cent and 50 per cent of any surplus over 12 per cent. In the distribution of the profits, two-thirds are set aside for the shareholders, and one-third to the holders of founders' shares.

The German Government holds no pecuniary interest in the company, except the right to a participation in the profits when they exceed a reasonable return. The Government subscribed no funds, held out no guarantee on principal or interest; the concession was not sold for a monetary consideration, no special tax was imposed, and the only consideration received for the concession was a tax on the profits when they exceeded a certain figure. Until the profits exceeded five per cent of the capital the Government derived no benefit, and as the line was operating several years before this stage was reached, the Government participation was therefore nil. In the matter of the concession the German authorities simply proceeded along lines recognized and followed by other Governments, who seek to derive a fair revenue for the State from the disposal of public service franchises. This participation in the extraordinary profits in lieu of corporation and income taxes, and special assessments and other tolls on business in no way implies a financial interest in the enterprise, or makes the Government liable as a shareholder or partner. The only protection or guarantee extended to the Company to ensure a profitable return on its capital, was the implied monopoly of the field, and the promise that no other concession would be granted for a parallel line, and that the Company would have the right, if they requested it, to construct the other Shantung railways embraced in provisions of the Kiaochow Convention.

The German Government fully and wisely protected itself against a failure on the part of the Company to live up to its Agreement to construct and open the line by a certain date, by enforcing the penalty of taking over the work itself or handing it over to a third party. This protecting clause in various other forms is a feature of all standard Government contracts. If the Shantung Railway Company, was an official enterprise with state funds invested in it, the Government would not have drawn up such stiff specifications for the faithful execution of the work. As a party to the contract both ways, it could not have properly exercised its authority, if its other partners failed to live up to their part of the contract. As to the rules regulating tariffs and train service, this is a prerogative reserved by all Governments for the protection of the public and does not imply any special interest in the line. The Japanese contention that the Shantung

railway is German Government property, because it constitutes an extension into Chinese territory of the Kiaochou lease, holds good then only as to the juridical rights exercised by the German Government in the regulation and supervision of a public carrier corporation. The physical property of the railway, land, road bed, rolling stock, stations, warehouses, terminals and wharves, are owned by the Shantung Eisenbahn Gesellschaft, a purely private share corporation whose rights to undisputed possession are incontrovertible. The rights of private property are recognized in civilized warfare. Japan may seize and operate the Shantung Railway as a military measure, and be well within her temporary rights. She may even confiscate the railway, but the rights of private property in international law stipulate that she should pay a reasonable price to the owners in return, and, in addition, an indemnity for the use of the line during the time the owners were forcibly withheld from legitimate enjoyment of their property.

If it is admitted that the German Government holds no shares in the Shantung Railway Company, but simply exercises its undoubted right to supervise and regulate its operations, and that the Company is a private one, it becomes evident that confiscation of the property by Japan, must be followed by some equitable and honorable compensation to the owners. Not only must Japan pay a fair price for the line, but also a fair indemnity or return for the use of the line until the final settlement is reached. A case in point occurs to us. When the Americans were operating against the Filipino insurgents in the Island of Luzon, it became necessary for the army to take possession of and operate the Manila Railway, owned at the time by a purely British Corporation. Up to the close of the insurrection, the British Company was forcibly deprived of the lawful enjoyment of the profits arising out of the operation of the line, and in consequence a heavy claim for damages was filed with the American Government. The seizure and occupation of the railway was rendered absolutely essential by the exigencies of the military situation, and there were other reasons which might have justified the American Government in refusing to entertain the claim. The failure to pay this claim at once was the cause of some friction, but it was eventually amicably adjudicated to mutual satisfaction. The precedent established is applicable to the Japanese seizure and operation of the private controlled German railway in Shantung. There may exist good Japanese reasons why an indemnity for the use and operation of the line should be refused to the German shareholders, as they are the enemy, but we can see no grounds for Japan to legally confiscate the property, without recompensing the owners for its loss. If Japan succeeds to the German Government rights in Shantung under the provisions of the Kiaochou Convention, she simply inherits the juridical rights to supervise and regulate the operations of the private German Company, in addition to the right to purchase the property at the expiration of any five year period under conditions fully and clearly set forth in the concession. The purchase price is determined by the payment of twenty-five times the amount of the average dividends paid during the last five years from its earnings. This then is the situation confronting Japan. If the rights of private property are respected, she must face the prospect of purchasing the railway from the shareholders, under the above conditions. The capital of the railway Company is Marks 54,000,000. For the last five years the following dividends were declared:—

1908	..	..	..	.0475	per cent.
1909	..	..	..	.06	"
1910	..	..	..	.065	"
1911	..	..	..	.06	"
1912	..	..	..	.075	"
					<hr/>
					.3075 per cent.

an average of .06125 for the last five-years. Twenty five times this is 153.125 per cent. This means that the value of the railway property alone would amount to Marks. 82,687,509 (£4,134,375) to which must be added the value of the mines and the steel works, now owned by the railway company. The capital of the railway company was increased by Marks 6,000,000 to take over the mines, and then by an additional Marks, 10,000,000 to erect the steel works. Its capital is now Marks, 70,000,000 or

16,000,000 more than is represented by the railway property. If we add 16,000,000 Marks as a fair valuation for the mines and steel works, which as yet have paid no dividends, we have Marks 98,687,500 or roughly £5,000,000 as the actual market value of the combined properties, Japan would be called upon to pay the private shareholders for the confiscation of their property. It is idle for Japanese publicists to adhere to the fiction of the railway being Government property in view of these facts. The railway was one thing, and the mines another, both being distinct private commercial entities, though affiliated by an interlocking directorate, representing the larger banks behind both enterprises. The railway struggled through its early stages, and owed its prosperity in part to the traffic of the Mining Company. The mines did not pay, and the railway company purchased the shares of the mining shareholders, and assumed control. The German Government had absolutely nothing to do with this ordinary business transaction between two private and independent commercial organizations, whose rights over the control of their property, and the lawful enjoyment of the profits arising therefrom have been ignored and rejected by Japanese seizure of the property for military purposes.

It is to be presumed therefore, that in the event of the ultimate victory of the Allies over Germany, and a separate treaty being signed between Germany and Japan, by which the latter will succeed to the rights embraced within the provisions of the Kiaochou Convention, that Japan will be called upon to deal honorably with the private shareholders of the Shantung Railway Company by an impartial valuation of their property, by competent authorities, and payment in accordance with their decision. Otherwise, the whole fabric of the inviolability of private property under international law controlling warfare, will tumble to pieces, and with this foundation swept away, it will be extremely difficult to restore that confidence in the money markets essential for investment of capital in new foreign enterprises, Japan would be the first to suffer, as all confidence in her willingness to abide by established European usage, would be destroyed, and her future loans ostracised abroad. In the heat of conflict, and intense national antipathies aroused by the war, it is all very well to talk of confiscation and seizing the Shantung Railway as a spoil of war, on the supposition that it is part of the Kiaochou lease, but when the war is over and the shattered organization of international finance is restored to its normal working order, closer scrutiny will be given to those incidents which undermine and make impossible future confidence in foreign investments. If Japan, by right of might, should arbitrarily refuse to compensate the private shareholders and owners of the Shantung Railway Company, and insist on an absolute confiscation of their property as a spoil of war, there might be no power to restrain her from doing so, but she would pay the price nevertheless, by a loss of confidence which would find expression in the money markets of the world. It would appear then that the utterances of a section of the Japanese Press, can not accurately reflect the real sentiment of the Government, who must be giving serious thought to the problem involved by the seizure of the railway and mines, and of finding an honorable and equitable solution.

If Japan determines to confiscate the property, any international court of arbitration would undoubtedly decide in favor of adequate compensation to the private shareholders. If we accept this, it means that under the terms of the Charter of the Railway Company providing for the acquisition of the property by the Government, Japan would be called upon to pay the shareholders the sum of £5,000,000.

Where will Japan raise this sum immediately after the war? If she is unable to buy out the shareholders, and insists on operating the line, the only just course to pursue, would be to act as the trustee for the shareholders, and turn over to them the annual profits, until such time as she can indemnify them outright. This in turn would call for the admission of German representation in the Directorate and accounting department, to protect the interests of the shareholders.

If Japan accepts this principle in guiding her future attitude towards the Shantung Railway and mines, and does not feel justified in paying the sum of £5,000,000 for the unrestricted control of the property, she may decide to include the railway

and mines in restoring Kiaochou to China. In that event, China's sovereign rights delegated to Germany in the Kiaochou lease, will be restored to her, and on her shoulders will rest the responsibility of solving the problem of the private shareholders. This would mean that China would be compelled to pay the £5,000,000 to the German shareholders to legally and peacefully enjoy the control and profits of the railway and mines. And from where is China to raise this money?

The question naturally arises, is the property worth £5,000,000? Deducting the value of the mines and the uncompleted steel works, and appraising the railway at Marks 82,687,500 or £4,134,375, the operating results under efficient European management, clearly indicate that the property is well worth this sum, and more. Under the monopoly accorded it by the terms of the Kiaochou Convention and its Charter from the German Government, there is little doubt that in a few years, the dividends would have risen to ten per cent, and there is no reason why they should not be still further increased, if the record of the Peking-Mukden line is a fair criterion. The value of the line therefore hinges largely on the maintenance of the monopoly. Destroy that monopoly by nullifying the provisions of the Kiaochou Convention, and permit competition to enter the province, either by the Chefoo-Weihsien line, or the excavation of the Hsiao Ching-ho ship canal, and the value of the railway as a dividend producer is cut in half, and its sphere of real activity relegated to the 110 mile unprofitable zone between Tsingtau and Weihsien. The Chefoo-Weihsien line would not impair the value of the Tsingtau line, as the latter holds the power to enforce discriminating rates against the former on through traffic. The value of the main line, can only be seriously affected through the construction of the suggested ship canal from Tsinanfu to the sea. The right to carry out this improvement rests with the Chinese Government. Therefore the attitude of the Chinese Government will influence the ultimate value of the railway. If the Chinese determine that their own interests are paramount over those of Germany and Japan, and decide to construct the Hsiao Ching-ho canal, the value of the Shantung railway shares will decline to at least half their present value. The construction of the canal will make the line a useless luxury to either Germany or Japan in the future, as the shipping center will again shift from Tsingtau to its original base at Chefoo. There would then be no profit in Japan paying the price to the German shareholders, as the railway could not maintain the commercial prominence of Tsingtau against Chefoo and the cheaper all water route through the heart of the competitive district to the provincial capital at Tsinanfu. Japan could then reap no profit from a base at Tsingtau, but would be amply rewarded by the extension of her commerce from Dairen.

If Japan decided that the retention of the railway is too costly, and restores it to China in connection with the lease of Kiaochou, and China is compelled to assume the obligation of acting honorably with the German shareholders, her valuation of the property would be influenced by her attitude towards the suggested canal. The expenditure of £1,000,000 on the canal, would reduce the value of the railway as a revenue producer to at least one half its present value, or £2,000,000. It seems clear then that if Japan restores the line to China, with the obligation to indemnify the shareholders, China's interests would demand that she expend £1,000,000 on the canal, which would be repaid 100 per cent by the decreased cost of the railway. With this possibility in view, is it worth while for China to undertake the construction of the Canal at once? Japan, Great Britain and the other countries at war with Germany may devise their own plans for the ultimate disposition of Germany's interests in Shantung without consulting China or other Powers who enjoy equal privileges, but China herself holds the whip hand in Shantung, which nothing short of deliberate seizure of the Province by a foreign Power can wrest from her.

A little neutral advice on the neutralization of Shantung at this time, would undoubtedly awaken the Government at Peking to a realization of its strength in this matter, but it is almost hopeless to expect that China will be guided aright through this crisis in her history. No influence short of actual force, and the utter disregard of the rights of the weak, which Britain has sworn to protect, should stand between China and

this avenue of restoring her influence in the sacred province of Shantung. Where there's a will there's a way, and China should exercise that will at once.

GEO. BRONSON REA.

EGG AND ALBUMEN INDUSTRY

The exportation of eggs from Tsingtau in 1910 was 1,821,183 dozens, against 955,409 dozens in 1909, the bulk going to Vladivostok. One factory engaged in the export of prepared dried eggs and the manufacture of egg cognac, egg noodles, and albumen also uses about 3,300 dozens a day.

While this industry has existed here for several years, the products being shipped to Germany, no effort was made until recently to secure trade in the United States. A sample shipment has gone forward under the requirements of the American pure-food law, and it is confidently expected that a thriving business will result. The egg supply is drawn from the southern part of Shantung, Chihli, and Honan Provinces, and with the latest German machinery a local firm has entered upon the business with hope of a substantial extension. The Columbia company, started in 1909, is a limited liability concern, whose export abroad in powder form exceeds 800,000 lbs. The nature of the machinery and the system employed in making the various products are held secret, and the only information obtainable has been in connection with the sample shipment mentioned.

Buying depots are established at Chowchow, Tsingchow, Weihsien, and other important places along the Shantung Railway line, and buyers are sent all over the province, purchasing eggs. For packing, empty cases of coal oil are used. Each of these fully packed will weigh about four hundred catties.

The price was 21 tiao per thousand in former days, but now it is raised as high as 27 tiao. As there is no chaff in the province owing to the absence of rice cultivation, wheat-straw or kaoliang stalks, beaten soft, are used in place of chaff in packing eggs.

The eggs arrive at the factory packed in old kerosene oil boxes. They are carefully examined by being held close to a strong electric light which shows the least defect. The fresh ones are washed and passed on to several Chinese boys who open them and separate the yolk from the white.

With the aid of a suction pump the yolk passes through a large pipe into a vacuum in the machine and is dried in 15 seconds. It is then passed on to a large receptacle into which the matter falls in the form of flakes which look clean, have a good color and a fresh odor. The flake is again passed through a machine and comes out in a powdered form ready for shipment. It is said that this product can be kept indefinitely if stored in a dry, cool place.

The whites of the eggs are put in small glass-bottom trays about a foot square and placed on shelves in a room having a temperature of 40° to 55° C. After thoroughly drying the material is broken up in small pieces and ready for export. These sheets are sometimes powdered or reduced to a crystal form resembling granulated sugar.

The factory is taxed to the limit of its capacity and it is the intention of the company to enlarge.

A market for eggshells has been recently established in Germany, where they are used as poultry feed.

To make 10 kilos (22 pounds) of dried yolks 1,500 eggs are required; to make 10 kilos of whole dried eggs 1,000 must be used, while 2½ kilos (5½ pounds) of albumen are made from the whites of 1,000 eggs.

The price of the whole dried egg is about \$0.73 Mexican (31 cents United States currency) a pound, of albumen \$1.03 Mexican (44 cents), of dried yolk about \$0.53 Mexican (24 cents). Shipments are made in tin-lined cases holding 50 and 100 pounds.

Another German firm (Karl Elers) also opened a factory in 1911, the output for the first year amounting to over 300,000 lbs. The specialty of this factory is the dry product which is sold under the trade name of "Sinaqua." Other factories were projected by German firms.

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THE WRITING ON THE WALL

The probably groundless suspicions with which the Chinese have regarded the operations of the Japanese forces in Shantung have, if anything, increased since the capture of the fortress. Although there has been no ebullition of public opinion, it is noticeable in official circles that lively fears are entertained that Japan will make Shantung her stepping stone to larger conquests, pseudo-economic if not actually political, in China Proper. In the eyes of the Chinese one method of acquiring a hold is as bad as the other. Rightly or wrongly they look upon Japan's economic advancement as militating against the welfare of China, discarding the fact that the advantages of trade are reciprocal, and clinging to the belief that Japan's motives are solely and wholly concerned with a scheme to secure political dominance in the country.

At the present moment it is inopportune to discuss whether these beliefs are right or wrong, for Japan has given her word to the world that she will play the game by China, and it is only fair to assume that she will do so until definite evidence is forthcoming to the contrary. So far as Japan is concerned her future is better assured by the development of friendship with China than in estranging her and creating hostility; and Japan has a distinctly happy opportunity now to show that the suspicions voiced against her are not only unfounded but are unworthy a thinking people. It is not to be expected, of course, that Japan will hand Tsingtau back to China as a free and untrammelled gift. China has not done much to deserve such a demonstration of magnanimity and generosity. But what China has the right to expect is that Japan will not make the cost too high or make demands for compensation which it will be undignified for China to accept.

The announcement made recently by the President that the presence of Japanese in Shantung will make for accentuated diplomatic difficulties which will call for careful and patient treatment, seems to indicate that the necessity for sagacious statecraft is gradually being recognised. That tardy recognition comes almost at too late an hour. The trials and tribulations to which China and the Chinese are heir can be traced almost exclusively to the fundamental blunderings of departed officials; purblind men who, in their ignorance of the trend of the world's political and economic currents, imagined that disdainful disregard of the "barbarian" and his ways would be sufficient to render China immune from them. Neglect to recognise that no country such as China can wall herself in and stand aloof from the vast movements which have for decades been remodelling conditions in the world was the primary cause of China's sorrows. Whatever benefits China is now obtaining from modern inventions have been forced upon her. Nothing has been employed voluntarily. She has profited by trade and by commerce, by railways, by telegraphs, by scores of modern inventions. All were adopted as a result of pressure; and even yet she fails to see the wisdom of acquiring to any extent the benefits which latter day economic and industrial developments are able to confer. A proper recognition of the tremendous advantages which would accrue to the nation politically, financially and economically by the systematic application of modern methods of administration and the adoption of the scientific achievements of the world would, even at this late date, act as a magician's wand upon her feeble national life, and save her from the dire fate which seems to be overshadowing her.

China has never lacked earnest and loyal friends among the foreigners who have come to her shores; friends who have taken her questions to heart with a sincerity equal to that which they might feel with regard to the land of their nativity, and who have untiringly but vainly planned means calculated to free her from her gyves and permit her to emerge triumphant from the chaos into which she has been flung by the folly of her old and benighted officials. With a consistency which is astounding, however, she even now spurns the wisest of counsel, and has exhibited the utmost ingratitude towards the majority of those who have chivalrously plunged into the vortex of her difficulties in an attempt to assist in the restoration of her freedom and her "face." This is one of the most appalling of her extraordinary characteristics. Foreigners imbued with the most splendid of

motives and equipped with the alertest of brains have between them devised multitudes of measures for the emancipation of the country, and rarely have any met with any other fate than that of being ruthlessly cast into the murky depths of the slough of despond. Their time, their trouble, and the best of their brains have been wilfully wasted, and down the steep declivity of national suicide China has wantonly rushed, without a saving grace; a subject of scorn even to her own people, and the very personification of ingratitude to those who could and would have assisted her to a better and more enduring state. What one of her present advisers, Mr. W. W. Rockhill, wrote of the Chinese in 1894, in his "Journey Through Mongolia and Tibet," page 17, would seem to hold good to-day: "Gratitude is, I believe, an unknown virtue among most Chinese, and the other Christian virtues have small room in their compositions."

And because the Chinese have flung so much to the winds in the past, it is difficult to believe that they possess the statesmanship to-day which will enable them to surmount their increasing difficulties. They strain agonisingly at the gnat of Japanese entrance into Shantung and swallow comfortably the camel of appalling degeneration throughout the whole of their great country. Astute statesmanship is called for now more than ever in the history of China. The convulsions raging in the world have so far merely touched the fringe of Chinese complacency and conceit, but unless those officials upon whose shoulders lies the great weight of responsibility for the safeguarding of the inheritance of the people are up and doing, and wisely and speedily up and doing, they may live to see their unhappy country plunged into the melting pot unable to give even a feeble shiver of resistance as their national entity is being extracted from China's anæmic frame.

Events are marching too rapidly in the world to-day for the soi-disant statesmen of China calmly to ignore them as in the past, and if the presence of the Japanese forces in Shantung will drive them to retrospection and a realisation of the means which even yet might be adopted to save them from annihilation as a nation it will have served a useful, a noble purpose. The royal road to safety lies over the horizon to foreign assistance in administration and industrial and economic development, and not around that circumscribed area wherein as of old ignoble adulation and self-conceit, garbed in silken robes, posed and strutted as competency and masterfulness. To save herself China must now do of her own volition what the nations have been urging her to do for centuries. She must open up; she must reform her administration; develop her mines, her industries and her commerce; mend her finances; transform her quagmires of highways into roads; systematize her railways; and above all, in fact, and not on paper, discard known wasters in her service and employ proved honesty and tried merit. In short she must clean up her house from cellar to attic, and to do it she must genuinely adopt of her own volition the skilled foreign assistance that is available for the asking. If she does not, the writing on the wall indicates that she will in no great span of time be compelled to sacrifice her right to do so. The world is undergoing too much readjustment just now for China to escape, and what she might now refuse to do will in course of time be done for her. To avert domination by Japan or any other foreign power, or coterie of foreign powers, China must quickly take steps properly to dominate in her own affairs—and the means to do that are at her hand if her officials have the statecraft, the courage and the foresight to seize them.

CHINA'S NEW PARLIAMENT

It would seem that China has not yet finished experimenting with Parliaments, despite the belief that exists in quarters that President Yuan Shih-kai has a deep aversion to the popular will being manifested in any way so far as the creation of legislation is concerned. During the past year, it must be admitted, the country has been controlled by dictatorial methods, but to describe the President as being hostile to a properly constituted and efficient Parliament does not, we believe, correctly state the case. The difficulty of ensuring efficiency is what causes the

President to hesitate in agreeing to bestow a wide franchise upon the adult male population of China, or in creating a parliamentary organisation wherein the young men might contrive to obtain control and in their zeal work unwittingly to the detriment of the State. The Parliament created on the Constitution devised by the Young Chinese after the Revolution undoubtedly proved unworkable. Conditions in China did not warrant such a forward step, and it failed by being decades ahead of its time. The party government principle which the foreign educated Chinese saw in operation in certain other portions of the world was too advanced an exotic to impose upon the undeveloped political stock of China, and it was only natural that the conservatism of the officials revolted against it. Whether the constitution could have been made workable had not certain political issues developed, it is now idle to discuss. President Yuan Shih-kai deemed that it could not, and having the strength to act, and the conviction that the safety of China depended upon him, he struck vigorously, and wiped the Parliament and the provisional constitution of the revolutionists out of existence. In their places another provisional constitutional compact and another system of parliamentary representation have been devised. There is to be no chance left this time for the youthful hot-heads to take flights beyond their sphere. The Li Fa Yuan is to be rather a stepping stone to parliamentary honors, than a full-fledged personification of popular power. It will contain no youthful and inexperienced aspirants to parliamentary fame. The franchise is a restricted one, and the powers of the Chamber will also be limited; and while it is on these grounds that the opponents of the President will base their charges of dictatorial control of legislation, still it has to be confessed that while the President wields his power wisely China is likely to gain and the gradual entry of her people into the rights of wider political freedom will be more beneficial both to themselves and the country.

The law promulgated for the Li Fa Yuan provides that there shall be 275 members with a term of membership of four years, and there will be but one session each year, commencing on September 1 and ending on December 31, unless the President exercises the power granted him to extend the session not more than two months, or call a special session. The President, too, is provided with checks which give him practically complete control over legislation.

Elections will be conducted by Electoral Colleges, the single system being used for the Special Central District and for Mongolia, Tibet, and Chinghai, while for the provinces the double system will be utilized, qualified electors electing the Electoral College which will subsequently elect the members of the Li Fa Yuan. The special Central Electoral College will elect forty members; 202 members will be elected by the electoral colleges of the various provinces, ten each by the provinces of Chihli, Fengtien, Shantung, Honan, Kiangsu, Kiangsi, Chêkiang, Hupeh, Szechuan and Kuangtung, nine each by the provinces of Kirin, Shansi, Anhui, Fukien, Hunan and Shansi, and eight each by Heilungkiang, Kansu, Sinkiang, Kuangsi, Yunnan and Kueichow; nine members will be elected by special administrative districts, four by Chingchao (Metropolitan District) two by Jehol, one by Shuiyuan, one by Chahar, and one by the Szechuan frontier; twenty-four members will be elected by the electoral colleges of Mongolia (16), Tibet (6) and Chinghai (2).

The qualifications of electors vary. In the central electoral college, as in all others, they must be at least thirty years of age, must be residents of Peking when the investigation of qualification takes place, must either have rendered meritorious services to the Government, or have been a high official, or be a learned scholar, or be a graduate of a high technical or higher school either in China or abroad, or possess equal qualifications of such a graduate, or have been a teacher in a high technical or higher school, or possess immovable property of the value of \$10,000, or possess investments in commercial or industrial concerns to the extent of \$10,000, or be a prince, or possess some hereditary title or rank of the Eight Banners, or, being a resident abroad, possess a capital of \$30,000 in commercial or industrial concerns abroad.

To be an elector of the electoral college of a province or special administrative district a man must be at least thirty years

of age and must have resided for one or more years in the electoral district before the investigation of the qualifications of electors take place, and must have been either a high official, or a graduate of a middle or higher school or possess similar education, or have immovable property valued at \$5,000, or have capital invested in commerce or industry to the value of \$5,000. With regard to the people of the Eight Banners within the Metropolitan District an elector must be a graduate of a high elementary school or possess similar education, or possess immovable property to the value of \$5,000.

The elector of the electoral colleges of Mongolia, Tibet or Chinghai must also be at least thirty years of age and be a prince or man of hereditary title or rank, or otherwise be considered competent, the restrictions provided for in other cases being removed.

To become eligible for election to the Li Fa Yuan a man must have the following qualifications. If he is an elector of any of the primary electoral colleges he must possess at least two years' experience as an official, be a graduate of a high technical or higher school, or still be studying, and possess immovable property to the value of \$10,000, or possess a capital of \$10,000. Besides the special provisions made for the primary elections any male citizen of the Republic who is thirty years of age may be elected a member of the Li Fa Yuan if he has either rendered meritorious service to the nation, or has been a high official for five years or more, or is a learned scholar, or is a graduate of a high technical or higher school either in China or abroad, or has been three or more years a teacher in a high technical or higher school, or possesses immovable property valued at \$30,000, or possesses a capital of \$30,000 invested in commercial or industrial concerns. In Mongolia, Tibet, and Chinghai any prince or person with hereditary title or rank, or any competent person may be elected.

The ineligible for membership are those who are deprived of public rights, are of unsound mind, are illiterate, or bankrupt, are under process of law, or criminals.

The right to be elected or to elect is to be suspended in the case of the active Secretary of State and the various Ministers of the Cabinet, the active Chairman of the Tsan-cheng-yuan (State Council), the active chief and councillors of the Ping-cheng-yuan, the chief and censors of the Censorate, chief auditor and assistant auditors of the Bureau of Audit, and the chief of the Bureau of Mongolian and Tibetan Affairs, the active chief administrative officials of the provinces and special administrative districts, the active judicial officers, military and naval men, either active or on the reserve, police officers in active service, monks, priests or other religious functionaries, except the latter be in Mongolia, Tibet or Chinghai. Teachers of elementary schools and students shall not be entitled to vote.

The electoral rolls will be prepared by a special committee and another special committee will undertake the investigation of the qualifications of candidates for election, while the date of the elections will be announced by the President.

In order to give evidence of sincerity in the establishment of a "parliament" a Bureau has been created to make the necessary preparations for the elections. The Bureau is now active, and it is stated that the elections will most probably be held in the spring, while the inauguration of the Li Fa Yuan will be held at Peking on September 1, 1915. It is idle to speculate as to the future of this new body. The President believes in it—and the Young Chinese do not. That is the regrettable feature. Already we hear from various parts of China the murmurings of unrest, and there is evidence that rebel agents are busying themselves in an endeavor to cause a third revolution. What they hope to gain by such a movement it is difficult to understand. They certainly can work no good to the country by the utilisation of arms at this unhappy juncture in the world's history. China is in a difficult enough position as it is. If she is convulsed by the turmoil of revolution her situation as an independent world power will be jeopardised to the extreme, and the leaders of the Young China party will be well-advised if they bend all their energies at this moment towards the consolidation of those things which China now endeavors to hold as her own. A revolution will do more to ruin the country, and deprive it of its independence than anything else that could be thought of. The foreign powers are in no frame

of mind now to regard with equanimity the disturbance of peace in this quarter, and it is quite on the cards that a revolution will compel them to call the country to order by force if necessary and at least make arrangements for its control by a foreign commission. Revolutionists who pride themselves upon being "patriotic" should think of these possibilities.

GERMAN INFLUENCE ON OFFICIAL CHINA

While other nations have been scheming to extend their influence and advance their special interests in China through the medium of concessions, loans, education and the appointment of Advisers and teachers, the Germans in addition to adopting similar tactics, have pursued a distinct and successful policy of arriving at the same end through the cultivation of personal and friendly relations with the high Chinese officials. The policy of some nations would seem to incline towards demanding and securing for their nationals the positions of Advisers to the Chinese Government in its various departments. As a consequence the Chinese Government is compelled to pay the salaries of Advisers who place the interests of their own country above that of China, and who cannot give disinterested and sympathetic advice on questions which arise. The Chinese are, however, very well informed as to the value of such services, and the high officials who direct the affairs of the country rarely solicit or act on the counsel of special pleaders, preferring to seek the sympathetic and disinterested guidance of those foreigners who have won their personal confidence and esteem.

The conservatism of the foreign social clubs established in the treaty ports throughout China, prohibiting the use of the club for a high class Chinese official or gentleman, renders ordinary social and friendly intercourse very difficult. To advance business and expand trade, a sympathetic understanding must exist between the foreigner and the native merchant of any country. Trade will continue to flourish, even though this essential is ignored, but the greatest success must necessarily come to those who cultivate the friendship of the customer on a footing of social equality. The opportunities for social intercourse which make for better understanding and friendship are therefore very limited in China. The friendly disposed Chinese merchant or official is invariably compelled to limit his intercourse with the foreigner either through the medium of a formal business call, or the occasional tedious dinner function.

The Germans early adopted the method of ingratiating themselves with the Chinese and securing their friendship and confidence, by social intercourse based on a recognition of equality of social standing. In some individual instances, this was doubtless carried to the extreme, and assumed the form of rank servility, but on the whole, their advances met with ready and grateful response by the high Chinese officials. So while the other nations intrigued, hammered on the table, and sought to attain their ends through devious ways, the Germans quietly made personal friends of the high officials themselves and were thus able to exert a strong influence on affairs without recourse to diplomacy or threats.

Under the Manchu régime they pampered the princes and princelets and wet-nursed them from childhood to the age of discretion and office holding. They loaned them funds on their personal property, and catered to their other wants. They got on the inside of their private affairs and were able to act as confidential advisers in personal matters. The advice of the personal friend in such a case would generally outweigh all the arguments of the paid adviser. The Germans were richly repaid for their years of patient work. Nearly all the contracts for the large public buildings in Peking were awarded to German contractors. The Princes of the Blood were all pro-German. Prince Tsai-tao and his brother Tsai-Hsun, heads of the Army and Navy respectively were openly in favor of German methods in their respective departments. The private residence of Prince Tsai-Hsun in Peking is a fine specimen of German architecture. The high Chinese officials under the Manchu regime were only too glad to follow the lead of their Imperial masters and contract friendly relations with the Germans. The army officers were German to the core. General Yin-Chang, the Manchu Minister

of War, was a personal friend of the Kaiser and favored the adoption of German military methods. In fact the entire coterie of high Chinese military officials who upheld the Manchu dynasty, and many of whom are now the power behind the President were pro-German in thought and sentiment. When the revolution broke and the Manchu princes and the high Chinese dignitaries fled for safety from Peking to the treaty ports, is it any wonder that the majority selected the friendly shelter of the German colony of Tsingtau as the safest place of refuge? Here they were amongst friends who had in the past treated them as equals.

The regulations of the Kiaochow Government provide that no Chinese shall be allowed to reside within the European quarters of Tsingtau. But since Sheng Hsuan-huai, the last Manchu Minister of Communications, was permitted to live in the Settlement, many Chinese political refugees went to dwell in the city. The German authorities extended them every facility without stopping to question whether they were friendly to the Government or against Yuan. In short, Tsingtau was thrown open as an asylum for Chinese refugees regardless of their factional differences, and ample protection given them. The following is a list of prominent Chinese residing in the German Leased Territory at the commencement of this year.

Prince Kung
Hsu Shih-chang
Hsu Shih-kwang (brother of Hsu Shih-chang and the former Customs Taotai of Chefoo)
Li Ching-hsi (the Chairman of the Political Council)
Li Ching-mei (the heir of Li Hung-chang)
Yang Tu (Superintendent of the Hankow Rebuilding Committee)
Chen Kuei-lung (the ex-Viceroy of Liang-Kwang Provinces)
Chow Hsieh-hsi (the son of Chow Fu and the ex-Minister of Finance)
Chow Hsieh-yuan (another son of Chow Fu)
Chao Erh-hsun (the ex-Viceroy of Fengtien)
Chang Jen-chun (the ex-Viceroy of Liang-Kiang Provinces)
Lu Hai-huan (the Chairman of the Chinese Red Cross Society)
Lu Jun-hsiang (the Tutor of the ex-Emperor)
Chu Ting-lin (a member of the Political Assembly)
Yu Shih-wei (the ex-Vice-President of the Li Pu)
Li Chia-chu (the ex-Vice-Chairman of the Tzu Cheng Yuan)
Wu Yu-sheng (the ex-Grand Councillor)
Yu Tse-ta (the ex-Governor of Shantung)
Hu Chien-shu (the ex-Governor of Shantung)
Sun Chia-lai (the ex-President of the Wai Wu Pu)
Wang Chiao-sheng (the ex-Vice-President of the Li Pu)
Wu Chien-sun (the Civil Administrator of Shensi)
Chu Chung-chi (the ex-Financial Commissioner of Fengtien)
Hsiao Chi-chun (the ex-Industrial Taotai of Fengtien)
Wan Shu (the ex-Commissioner of Salt)
Tung Tzu (the Industrial Commissioner of Shantung)
Hung Shu-tzu (the alleged assassin of Sun Chiao-jen)
Lin Chin-tsao (the ex-Vice-Superintendent of the Chekiang Railway)
Chang Chu-pao (the ex-Vice-Superintendent of the Shanghai Arsenal)
Sheng-Yun ex-Viceroy of Shen Kan (under the fictitious name of Lo Tu-su)
Sun Pao-chi (ex-Minister to Germany, Governor of Shantung and Minister of Foreign Affairs)
Hsi-Liang (ex-Viceroy of Manchuria.)
Wu Chih-mei
Yuan Tai-hua
Hsu Ting-lin and others of less distinction.

The present Minister of Finance is Mr. Chow Tsz-chi, promoted to the Cabinet from the Governorship of Shantung; the Minister of Communications, Mr. Liang Tun-yen, resided five years in Berlin immediately previous to his assuming office, in fact he came direct from Berlin to take up his post; the Minister of Foreign Affairs, Mr. Sun Pao-chi, during the last five years has been continually under German influence as Minister to Germany, Director General of the Tientsin-Pukow Railway and Governor

of Shantung, and his son-in-law, Mr. W. W. Yen is the present Minister to Germany. Mr. Hsu Shih-chang, Secretary of State and intimate of the President, Mr. Li Ching-hsi Chairman of the Political Council and others high in the affairs of China at this time were recalled to office after an extended residence in the German colony of Tsingtau. The President himself was Governor of Shantung before he was promoted to the Viceroyalty of Chihli, and experienced contact with the Germans when they first entered the Province. It is clear from these facts that the German policy of making personal friends of the rulers of China is more effective and advantageous to the advancement of their interests than the methods of other nations.

Is it any wonder then that when the great war broke loose in Europe, the high officials of the Chinese Government openly sympathized with the nation whose representatives in China had won their personal friendship? The "root of German influence" may be "eradicated from China" but the Germans have pointed a way to attain success in this country that other nations may well profit by. This road is open to all; the broad way of friendly and social intercourse on a plane of equality. The elimination of social and racial distinctions and a friendly interchange of opinion has paved the way for the Germans to find the heart of the Chinese and exert real influence without the necessity of diplomatic pressure.

Wherever the white man rules in Asia, he makes it an unchangeable law that the color and racial line be tightly drawn in his social and club life. In other parts of Asia under European rule the need of a club where the educated gentlemen of both races can meet and exchange opinions on equal grounds has long been advocated. In Calcutta, where the British refrained from mixing socially with the people they governed and conducted business with, the need of such a club was advocated several years ago, and in Manila, the FAR EASTERN REVIEW, advocated the same idea, which was taken up by Governor General Forbes and resulted in the organization of a club in which the leading Filipino and American officials could meet on common ground and learn to know each other. In China, the same necessity exists, but it is a striking commentary on the policy of all other nations, that the only clubs of this nature, were created by the Germans and the French in Peking. Housed in the building of the Shui-wu Chu is the Sino-German Club where the leading officials of the country can meet in friendly intercourse the German merchants and officials who desire that they should know each other better, while the Sino-French Club is in the Legation quarter. In this the Germans and the French have set the other nations an example they may well profit by.

EDITORIAL ANNOUNCEMENT

The present issue of the FAR EASTERN REVIEW, supplies in a readily accessible form, a first instalment of all the information available about the Province of Shantung. When it is remembered that the Province, as the birth-place of Confucius, has a semi-sacred character; that it is densely populated and immensely rich in minerals and the staples of numerous great industries, it is surprising that hitherto no attempt has been made to present to the world in collected form the information that has been scattered through reports by the Maritime Customs Commissioners, consuls, by mining experts, by missionaries and others. It was found when the task was begun that there was such a mass of information to be dealt with that it was impossible to condense it within even an enlarged edition of the REVIEW, consequently the record will be continued in the December number.

In addition to original articles on the neutrality problems raised by recent happenings in the province and the laboration of a policy by which China may preserve her sovereign rights, other articles giving the most recent information in regard to the Shantung Railway and the mines will be found. All these articles are fully illustrated and elucidated by maps.

As many of our subscribers have expressed a wish to have the information contained in this and the next special issue in book form, arrangements to this end have been made and an announcement in connection therewith will be found on the colored page preceding the reading matter.

THE SHANTUNG RAILWAY

The original capital of the Company was 54,000,000 Marks, but when the Company took over the rights and property of the Shantung Mining Company on January 1, 1913, the capital was increased to 60,000,000 Marks, divided into 60,000 shares of 100 Marks each.

The grading for the road-bed began on September 23, 1899, at Tsingtau and Kiaochou, when His Royal Highness Prince Henry of Prussia turned the first sod. The engineers planned a single track, standard gauge line, and work was carried on in both directions, east and west, some 25,000 laborers being employed. Progress was fairly rapid, the grading of the road-bed presenting few engineering difficulties. For the greater part of its length the line runs through flat country, skirting the foot of the mountains in middle Shantung, and dynamite was only employed in a few places in the German leased territory and in a few cuttings on the western section.

Starting from Tsingtau station, which is eight metres above the sea, the railway crosses several low chains of hills between the larger rivers, and on reaching the water-shed of the Yun-ho, attains a height of eighty-eight metres, gradually ascending as far as the city of Tsing Chow-fu. Wide streams such as the Pai Cha-ho, Schykia-ho, and Taku-ho, are crossed before Kiaochou, at the head of the bay, 74 kilometres from Tsingtau, is reached, and thence to Changling, 128 kilometres from Tsingtau, the line passes through a fertile plain crossing the two rivers, Mischui-ho and Kiau-ho. West of Changling the line reaches the hilly country and passes the ranges in long winding curves to Weihsien, 183 kilometres from Tsingtau. Many rivers rise in this part of the country, two of them being spanned by bridges of nearly 300 metres in length each.

Having reached Tsing Chow-fu the line descends to a height of 40 metres near Chow-tsun, and about 20 kilometres west of that city a chain of mountains running from south to north is crossed, the height reached at Wang-tsun being 158.73 metres above sea level. From this point the line gradually descends to Tsinanfu, where the altitude is but 34.80 metres above sea level.

Branch Lines.—A branch line, 40 kilometres in length, beginning at Changtien, which is 47.17 metres above sea level, runs in a southerly direction up the Poshan valley, following the course of the Hsiau-fu-ho. The town of Tzechwan, the centre of the coal mines of the Company, is passed en route and the terminal station is at Poshan, 179.40 metres above the sea.

A branch line seven kilometres in length from Setchwan also connects with the Hungchan coal mines; another branch four kilometres in length joins the main line at Fangtze with the coal mines, while another branch at Tsinanfu, eight kilometres in length, gives connection with the Yellow River. In a short time a new branch seven kilometres long will be open to the iron mines at Chinlin-chen, where work has just been begun.

Length of Line and Gradients.—The total length of the main line is 400 kilometres, or 395,373.75 metres, of which there is a level grade of 41.62% or 164,452.68 metres. The ascending grade from east to west is 29.01%, the descending grade being 29.37%. The straight track totals 299,323.42 metres, or 75.71%, the curves absorbing 24.29%.

The Poshan branch line has a length of 39,200 metres, the level grade being 30.42%, and the ascending grade 69.58%. The straight track totals 27,416.04 metres, or 69.94%, the curves totalling 30.06%.

The steepest grade on the main line is one in 150, and on the Poshan line one in 100. The sharpest curve has a radius of 300 metres.

Road-bed.—The road bed is five metres wide, the slope being one in 1.5. In flat country, where floods occur, the slope is one in 2. Excavations are likewise five metres at the bottom. Ditches wide enough to carry the water which runs from the sides of excavations have been made and lined with cement plaster.

Earthwork.—As far as possible excavations of any considerable depth were avoided owing to the great friability of the soil. No tunnels were necessary.

Embankments are protected against the ravages of heavy rains and floods by heavy stone reinforcements of the base, in addition to which the sides have been protected with sod, and trees such as willows, acacias and alders.

Ballast.—The stone ballast is 4.50 metres wide, and consists either of broken stones (granite or black limestone) or of pebbles, and is at least 35 centimetres thick.

Bridges and Culverts.—The total number of bridges and culverts along the line is 1,330. Of these 1,150 are iron bridges, and 280 arch stone culverts. The latter vary in length the maximum being six metres. The total length of all such culverts on the line is 640 metres.

The spans of the iron bridges vary from one metre to 46 metres, and their total length is 7,700 metres. The longest bridge is over the Tse-ho, 258 kilometres from Tsingtau, the length being 470 metres. The number and dimensions of the bridges more than 50 metres long are as follows:—50 metres to 100 metres, seventeen; 100 metres to 200 metres, three; 200 metres to 300 metres, five; 470 metres, one.

Masonry.—The total mason work on bridges and culverts amounts to 210,000 cubic metres. The foundations of most of the large bridges are laid upon iron piles 12 to 14 metres long. In a few cases the foundations rest upon caissons.

Rails and Ties.—The normal length of the iron rails is 10 metres, and the weight 300 kg. each. The ties are of steel, weighing 50 kg. each. The material was all bought in Germany. The rails are ten centimetres wide at their base, 5.7 centimetres at their top, and are 12.50 centimetres high. The ties are 2.40 metres long and 8 centimetres high.

Stations.—There are 55 stations for all kinds of traffic on the main line, and four on the branch line to Poshan. Besides these there are five stations at the end of short branches for receiving cargo only.

The majority of the stations have goods sheds. Some important stations have two, the total number of all sizes being 32. European station masters are in charge at Tsingtau, Kaumi, Fangtze, Changtien, and Tsinanfu West.

Round Houses.—There are 16 round houses, with capacities varying from 4 to 12 locomotives. The round houses at Tsingtau, Kaumi, Fangtze, Changtien, and Tsinanfu are under European control.

Turn-tables.—There are eight turn-tables with an inside diameter of 17.50 metres each.

Tank Houses.—There are 20 tank houses with water tanks of from 40 to 80 cubic metres each.

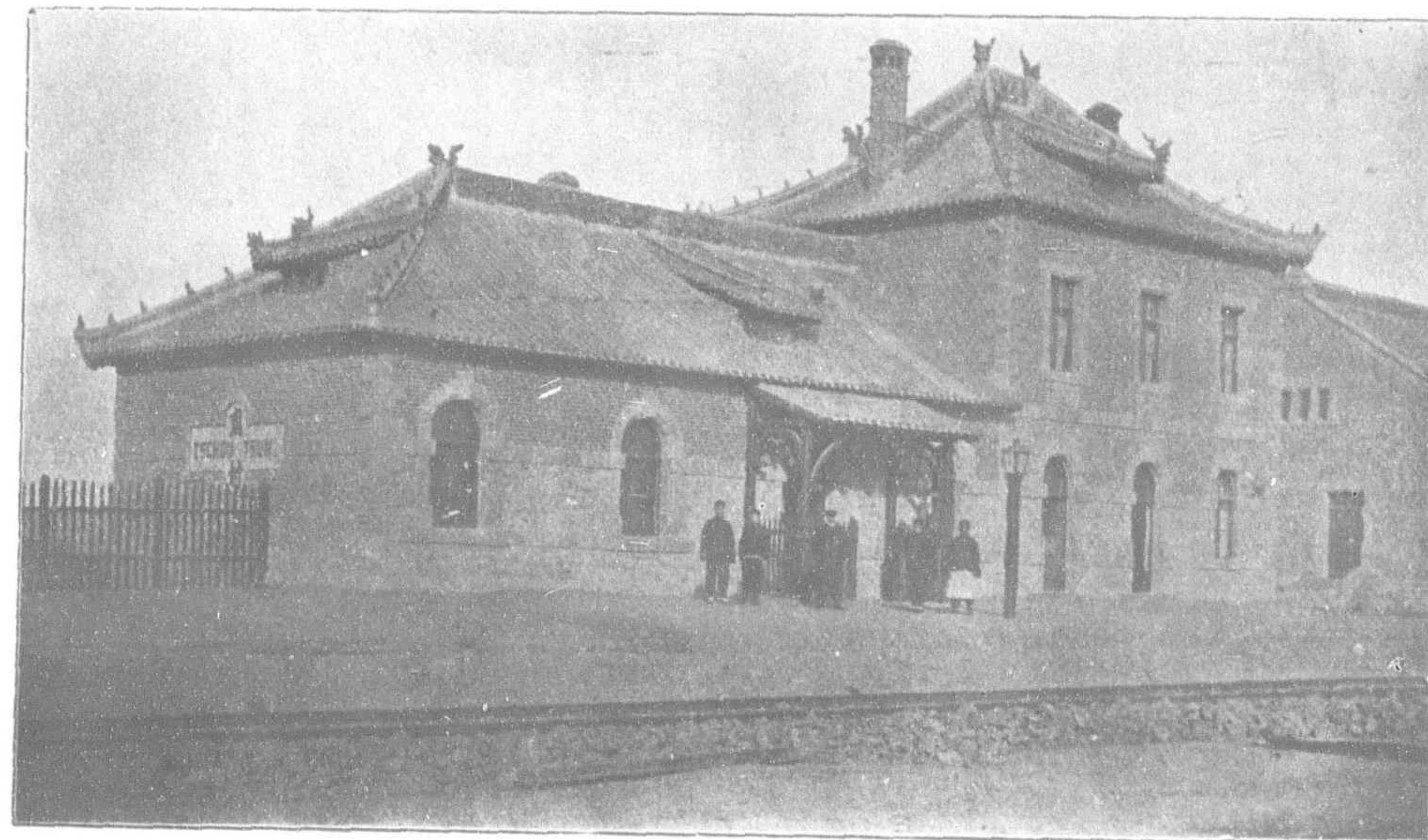
Platform Scales.—There are twelve platform scales of 55 tons capacity each.

Works Shops.—Large work shops and magazines are situated at Syfang, near Tsingtau, and are fitted with the best and most modern machines, operated by electricity. They are capable of effecting all necessary repairs, and most of the outfitting work can be quickly and efficiently done. The shops are under the direction of an engineer of the Imperial German Railways, who has under his control 16 Europeans and about 700 Chinese apprentices. The stations which are under the supervision of Europeans are able to effect small repairs to locomotives and cars. They engage in this work about 100 apprentices and laborers.

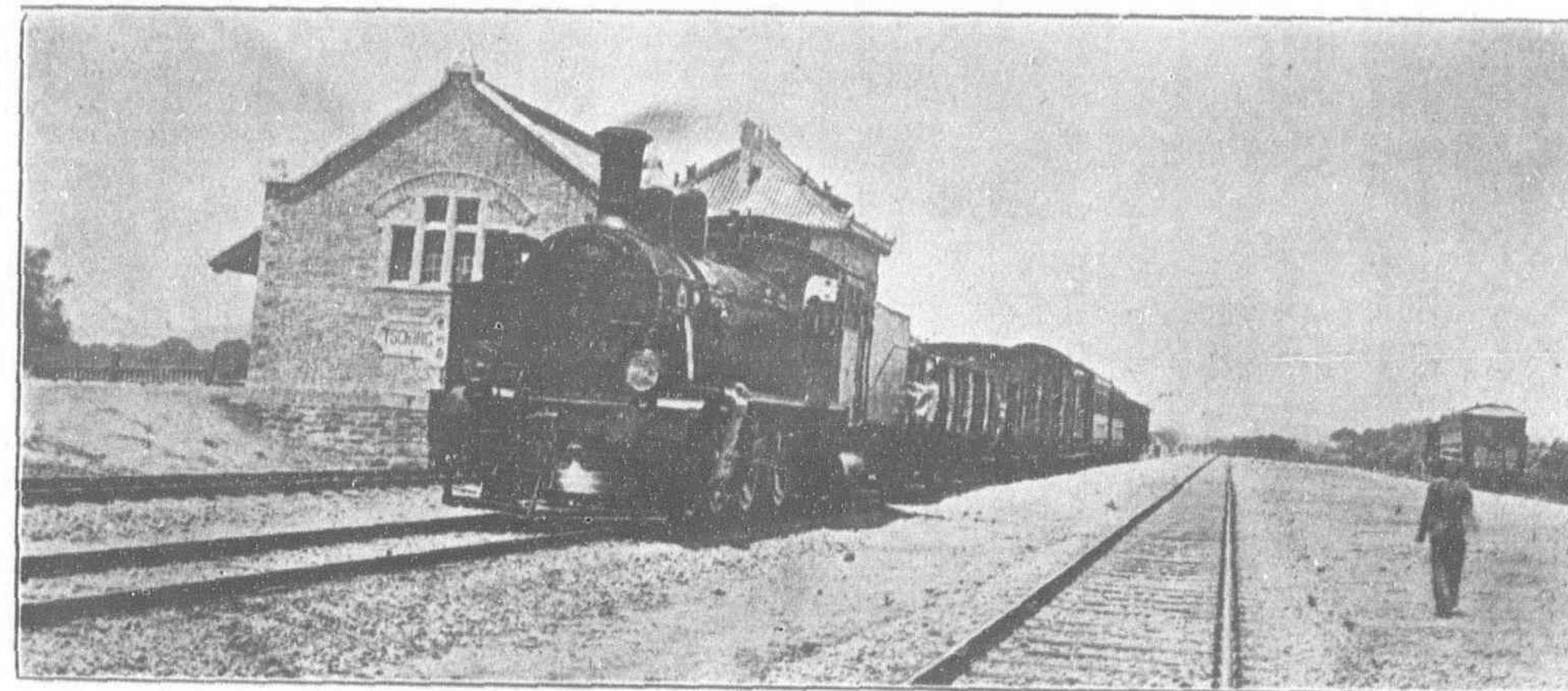
Opening of the Line.—The first section of 74 kilometres to Kiaochou was opened for traffic on April 8, 1901, and further sections were put into operation during the same year. On June 1, 1902, the whole of the first half of the line, as far as Weihsien, was opened for freight and passenger traffic, and on June 1, 1904, the whole line, including the Poshan branch, was opened.



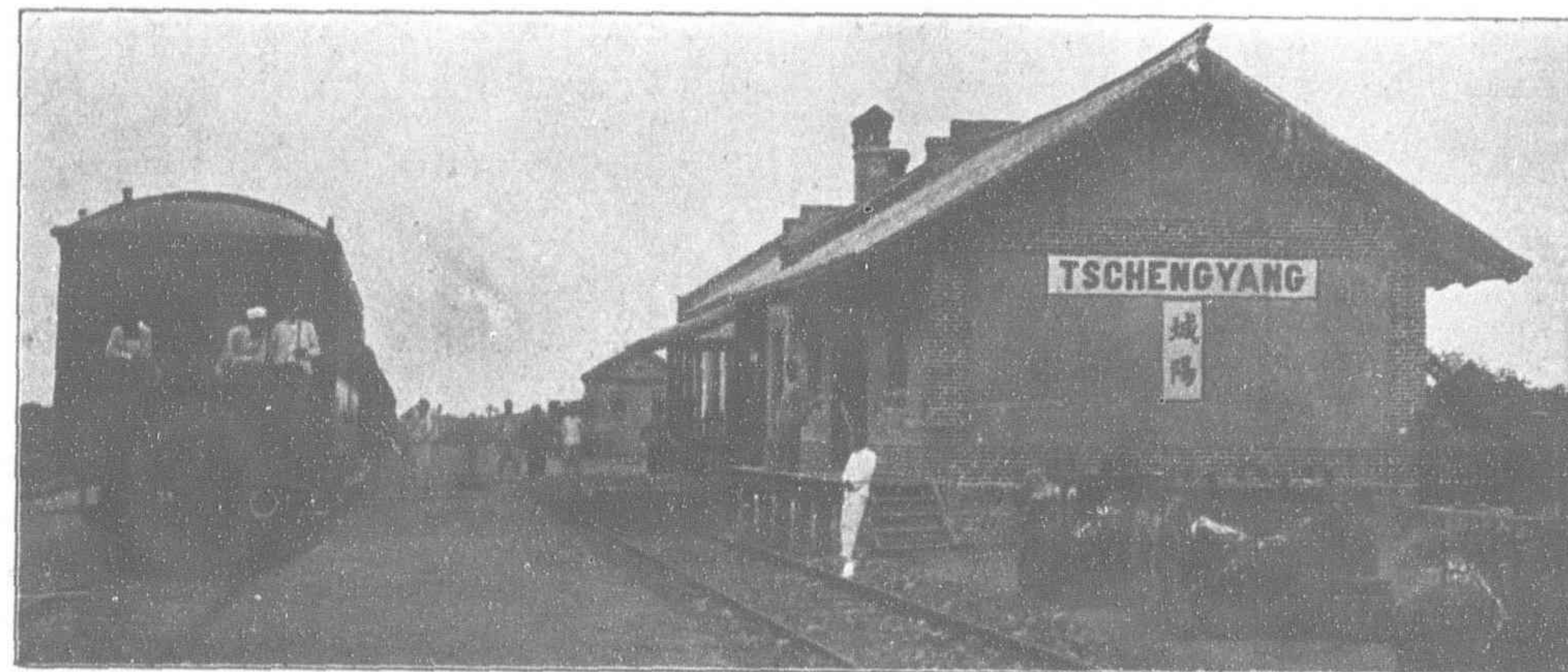
Terminal at Tsingtau.



Tschou-tsun Station.



Ching-chow Fu Station.



Tscheng-yang Station.



Likotschuang Station.

Cost of Construction.—The railway was five years in construction and the entire cost of construction and equipment was 52,901,266 Marks.

Following are the details:—

Land	£ 89,700
Earthwork	148,000
Level crossing and fencings	2,700
Bridges and culverts	728,000
Permanent way	759,000
Signals, blockhouses, etc.	13,200
Stations	106,000
Repairing-shops, etc.	85,000
Materials (coals, etc.)	310,000
Administrative expenses	203,000
Interest on capital, etc.	200,000
Total	£2,644,600

or, including interest on capital, about £9,200 per mile.

The longitudinal section of the road shows that the main line is made up of forty-two per cent. level, twenty-nine per cent. rise, and twenty-nine per cent. fall, with a maximum grade of six per cent. The permanent way has been constructed to sustain ordinary traffic at a speed not exceeding 37.5 miles per hour.

The survey covered in area a strip of land varying in breadth between 500 and 2,000 yards, and cost about £36 per mile, being completed at the rate of ten miles per month. The land was expropriated in accordance with Chinese law, 1s. 1d. being paid per square yard, with a surcharge of eight per cent. for land in crop and near the townships. The earthwork was sublet in contracts of six miles in length, and was paid for at schedule prices, 1s. 4d. per cubic yard for ordinary earthwork, and 10d. per cubic yard for rock. All bridges and culverts were standardized, as well as the wooden and steel scaffoldings used for erection.

REPORT FOR 1912

The following is the report of the Board of Directors of the Shantung Railway Company for 1912:—

The year 1912 closed with a profit of \$3,063,909.13 (2,410,583.65)* and a dividend of 7½ (6%) for the capital and M. 12.50 (M. 5.00) for each special share. The receipts amounted to \$4,239,664.01 (3,511,105.60) and the expenditure to \$1,175,754.88 (\$1,100,521.95). In spite of the decrease in the shipments of construction material for the Tientsin-Pukow Railway both the passenger and the freight traffic show a remarkable increase. The high rate of the Chinese dollar—mean rate for the year M. 210.47, (185.99)—benefited the financial result of the company to a great extent.

There were no remarkable accidents, neither were any bridges or culverts destroyed during the rainy season.

The increase in traffic and the connection with the Tientsin-Pukow Railway necessitated the following improvements and building:

At Hamatun and at Ershilipu one small freight-shed; in Tsinanfu West the enlargement of the station in order to facilitate the passenger and freight traffic from and to the Tientsin-Pukow Railway; in Tsingtau a dwelling house for Chinese station and train personnel, and a car shed for the new 1st Class dining cars; a dépôt at Tsingtau Grosser Hafen; at Syfang enlargement of the shops (not finished), a shed for the main storehouse, and an office building for the administration of supplies with dwelling house for the personnel; a lumber-shed for the central repair, etc., shops at Kaumi; a lodging-house for training personnel in Fangtze and Weihsien; a lodging house for train-personnel in Fangtze; a dwelling house for Chinese personnel at Tchangtien and Tsinanfu West.

The condition of the tree plantations and shrubberies is satisfactory. Mostly acacia and willow were planted. The tree-nurseries of the Railway furnished the young trees.

The agreement with the Tientsin-Pukow Railway with regard to transfer of cars, which proved satisfactory, was in December, 1912, after the completion of the Hoangho-bridge, extended to all stations of the Tientsin-Pukow Railway. During the year 1912 the following cars were transferred:

From the Shantung Railway to the Tientsin-Pukow Railway, 3,959 (5,026) cars.

From the Tientsin-Pukow Railway to the Shantung Railway, 1,895 (492) cars.

The decrease of cars from the Shantung Railway to the Tientsin-Pukow Railway is due to the fact that the construction work of the Tientsin-Pukow Railway is nearing its completion and the shipment of supplies is decreasing accordingly.

Rolling Stock:—

Locomotives: 41 (41) viz:

- 23 ten wheeled, 6 coupled, 2 cyl. simple passenger engines.
- 4 ten wheeled, 4 coupled tank passenger engines.
- 7 eight wheeled, 6 coupled tank-freight-train-engines.

3 eight wheeled, 8 coupled, 2 cyl. simple freight-train-engines.

4 eight wheeled, 6 coupled shunting engines.

Total of 0.094 engine per kilometer of road.

Passenger and Baggage cars: 110 (110) viz:

- 15 Passenger cars, 1st and 2nd Class
- 5 " 2nd
- 8 " 2nd and 3rd "
- 3 Dining cars
- 3 Kitchen cars
- 23 Baggage cars
- 10 " and mail cars.
- 1 Office car
- 1 Saloon car

Total of 1.253 cars per kilometer of road.

Freight and service cars: 1,051 (1,013):

- 283 Covered wagons
- 557 Coal (open) wagons
- 75 Coke-wagons
- 5 2-story cattle wagons
- 10 Wagons for transp. of lime with lid
- 104 Flat wagons
- 3 Trav.-cranes
- 2 Tool wagons
- 1 Trav.-scales

Total of 2.419 cars per kilometer of road.

On the average there were 41 locomotives and 1,121.75 cars on hand during the year.

One express passenger train travelled daily between Tsingtau and Tsinanfu, also 16 mixed trains and about 9 supply, etc., trains.

The total number of trains amounted to 12,530 (10,644) and the total number of kilometers travelled to 1,439,760 (1,322,805).

The number of kilometers travelled is distributed as follows:

	No. of trains.	Kilometer.
Passenger.....	732 (688)	288,408 (269,490)
Special Passenger Trains	20 (9)	2,758 (1,646)
Mixed Trains	5,856 (5,836)	653,680 (646,516)
Trains carrying R. R. supplies ...	3,204 (2,049)	465,506 (377,408)
Construction Trains	2,718 (2,062)	29,408 (27,745)

The rolling stock obtained the following results:

(a). Locomotives: 1,623,144 (1,432,374) Locomotive Kilometers distributed as follow:

	Loc. Kil.
in Passenger trains:	288,408 (269,490) "
" Special P. "	2,758 (1,646) "
" Mixed "	653,680 (646,516) "
" Supply "	465,506 (377,408) "
" Construction "	29,408 (27,745) "
" Extra trains	153,019 (83,506) "
Empty	30,365 (26,063) "

in addition to the above

in Switching 42,606 (35,794) hours at 10 L. Km=426,060 (357,940)

in Miscellaneous 20,370 (19,534) hours at 5 L. Km.=101,850 (97,670)

(b). Wagons: 61,807,064 (50,486,864) Wagon-Axle-kilometers, i.e.,

	Axle-Kilo.
Passenger cars	13,552,466 (10,315,180) "
Baggage & Mail cars	3,446,100 (3,206,848) "
Freight cars	44,808,498 (36,064,836) "
Empty.....	15,433,076 (12,683,180) "

Average strength of train:

42.93 (38.17) axles.

Average of traffic per week:

23,655 (17,482) Passengers 16,385 (14,084) Freight tons

Greatest traffic in one week:

35,469 (25,283) Passengers 32,267 (24,277) tons of freight

Total of traffic

1,230,043 (909,065) Passengers 852,001 (717,189) tons of freight.

RECEIPTS: Total \$4,239,664.01 (3,511,105.60) distributed as follows:—

Passenger traffic: \$970,246.52=22.89% (714,204.55=20.34%)

Freight traffic: \$3,229,969.37=76.18% (2,741,807.86=78.09%)

Miscellaneous \$39,448.12=0.93% (55,093.19=1.57%)

Average receipts per km. \$9,758.92 (8,081.91)

Compared with the preceding year the receipts increased 20.75% (—5.88%) as follows:—

Passenger traffic+35.85% (+9.04)

Freight traffic+17.80% (—7.63)

Miscellaneous—28.40% (—48.51)

EXPENDITURE: Total \$1,175,754.88 (1,100,521.95)

=per kilometer \$2,706.37 (2,533.20)

compared with preceding year+6.84% (+10.08)

The proportion of the receipts to the expenditure 100:27.73 (31.34)

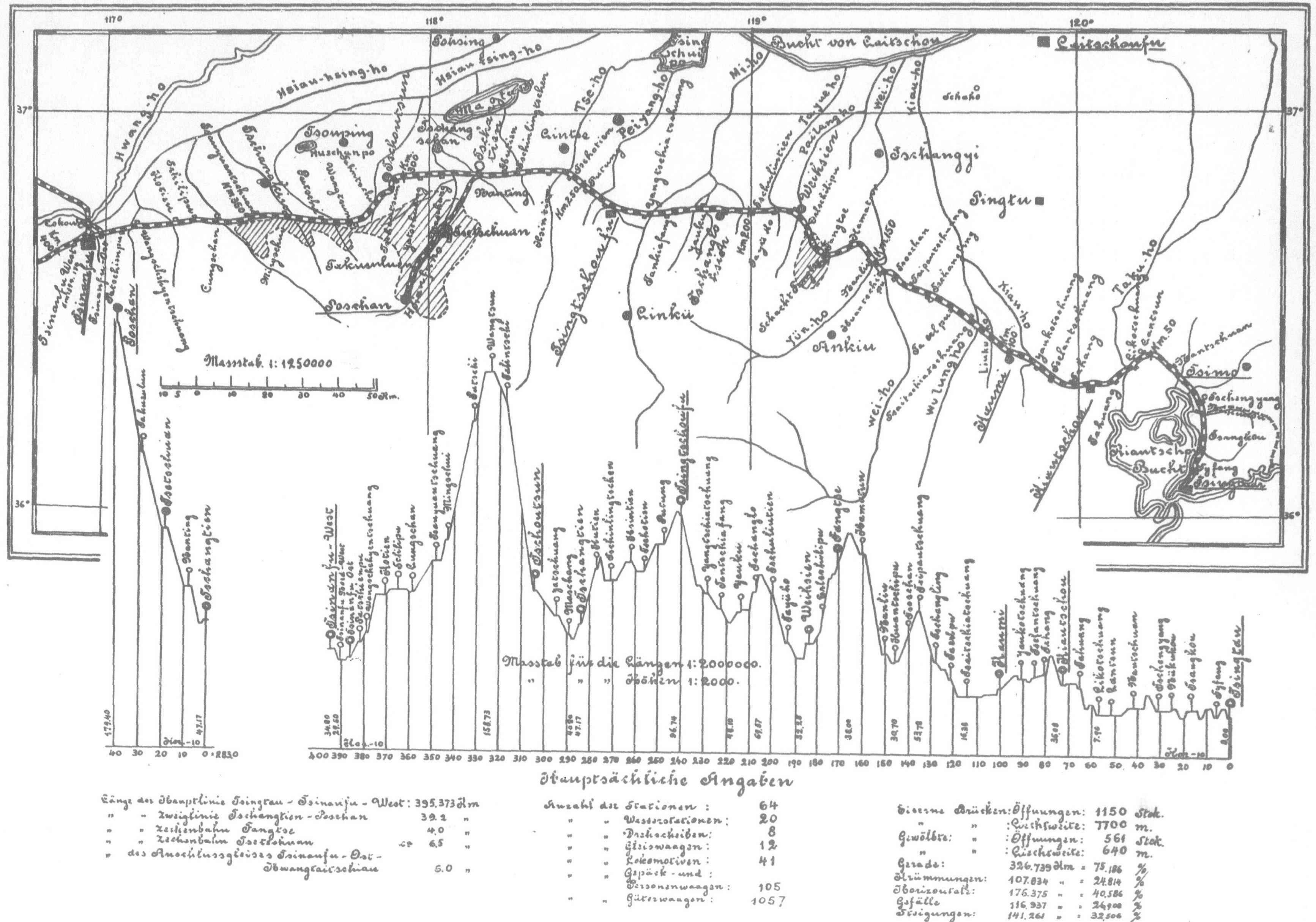
The following items concerning the balance have to be considered:—

Supplies on hand:

Main Storehouse.....	M. 884,393.36
Telegraph "	36,411.72
Coal & Oil "	79,635.48
Printing "	18,291.79
Fixtures, etc.,	9,500.91

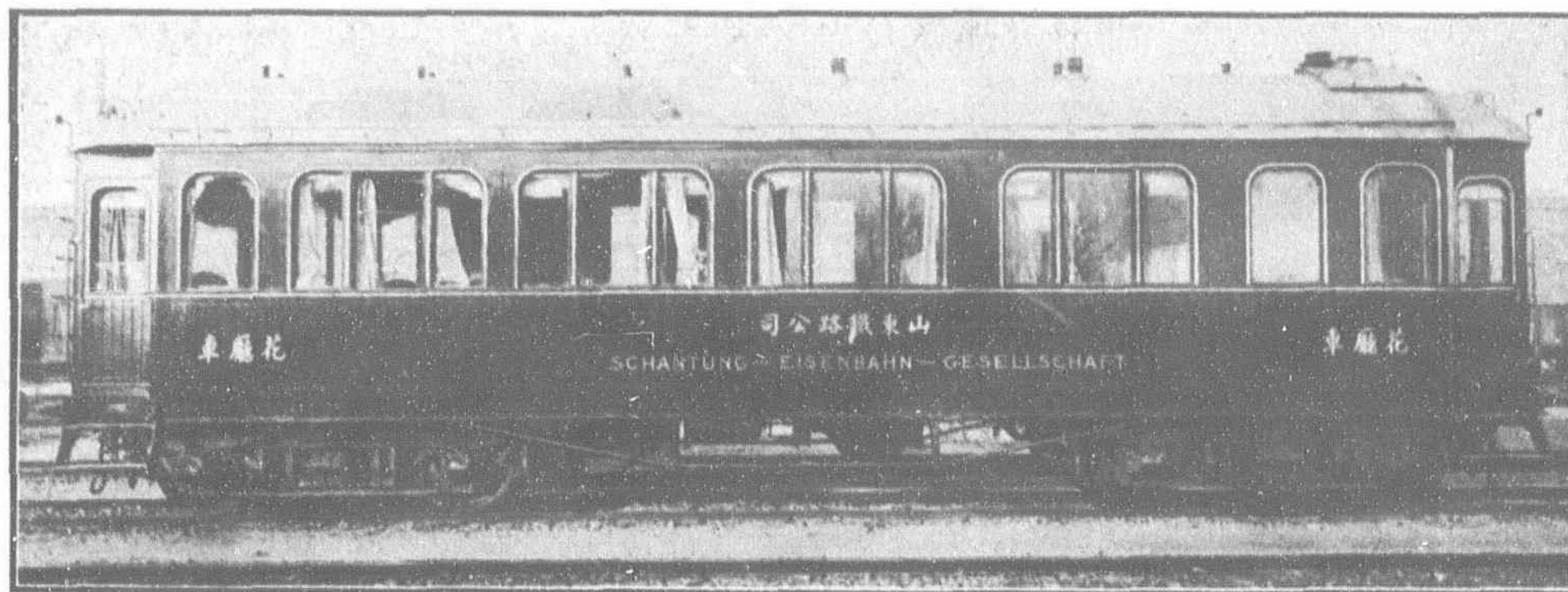
Total.....M. 1,028,233.26

* The figures in parenthesis are the corresponding figures for the preceding year.

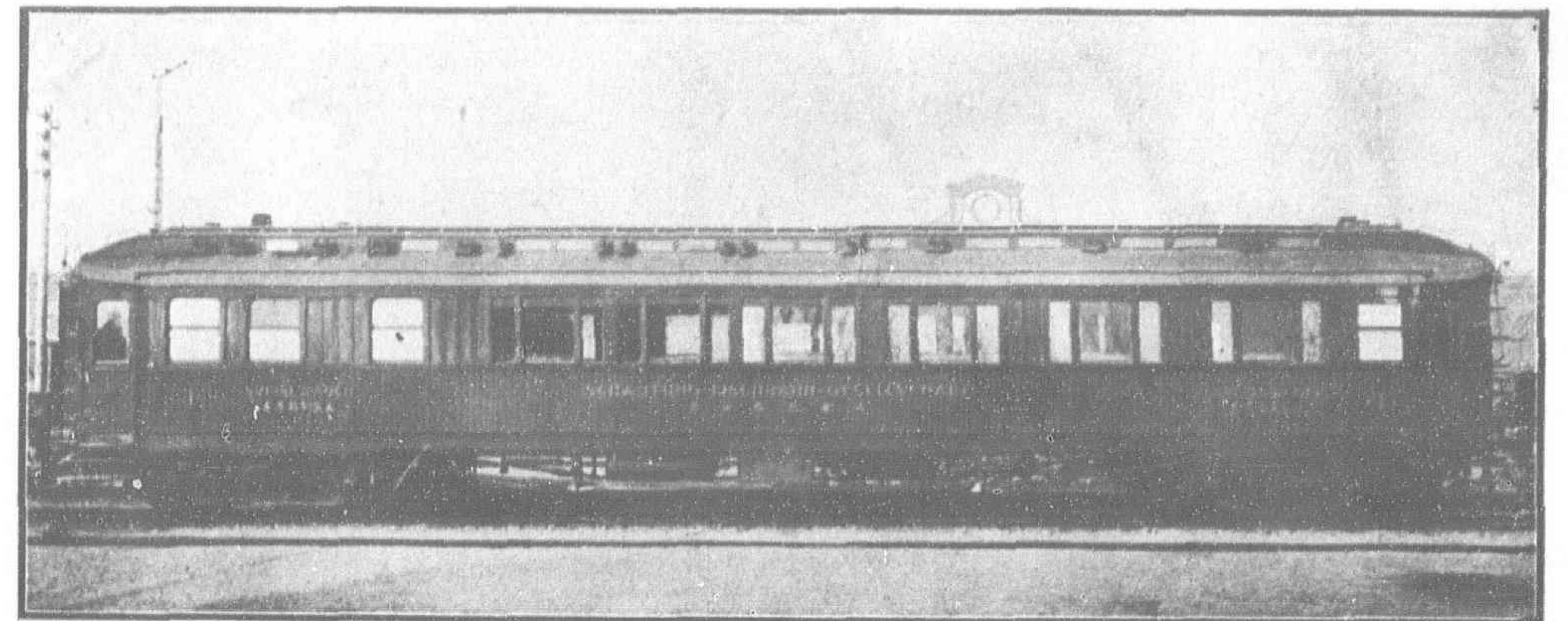


MAP OF THE SHANTUNG RAILWAY

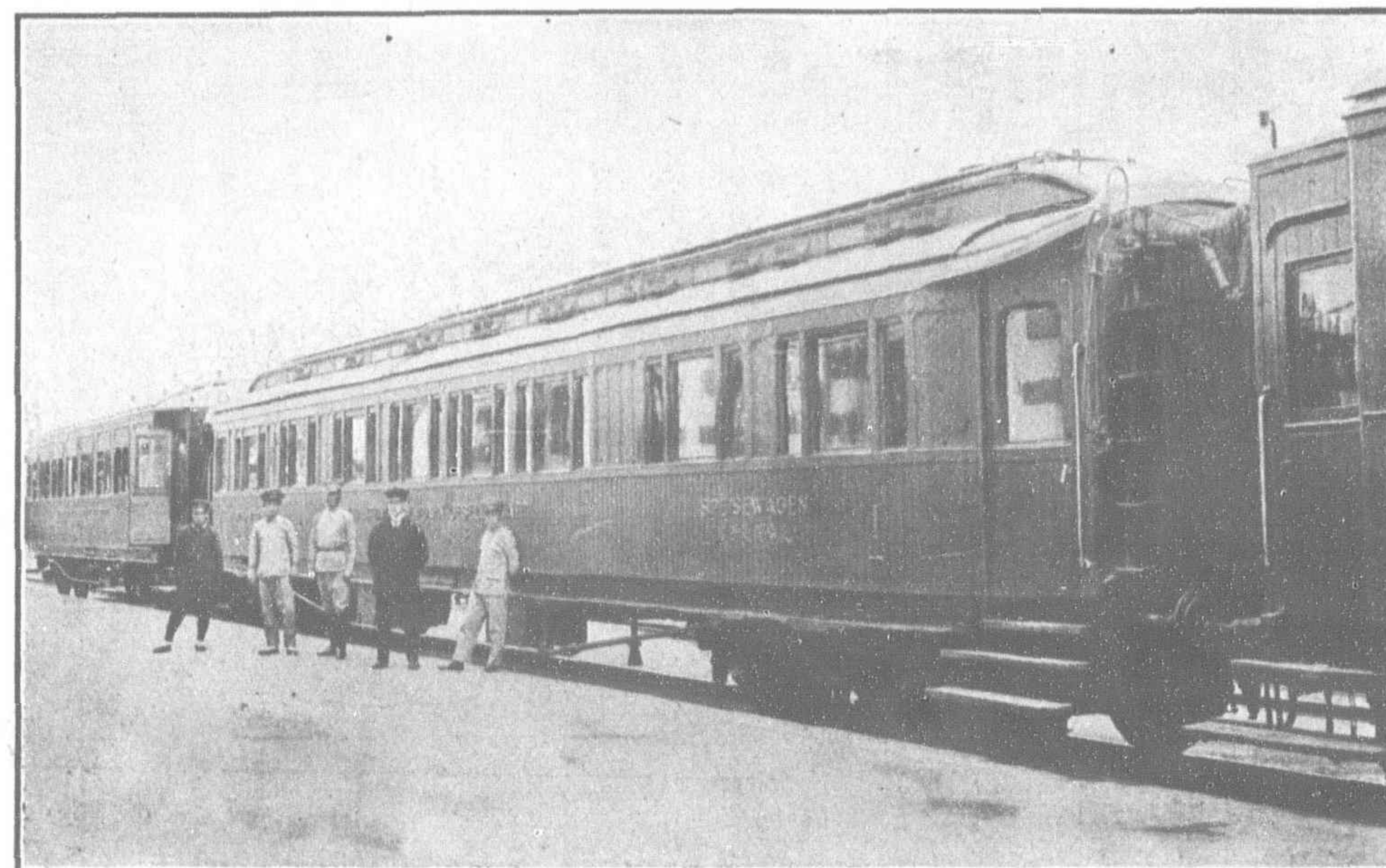
Debit									Mark Pf.		Credit. Mark Pf.
Expended in operation...	...	...	...	...	...	...	...	2,464,629	99	Brought forward for 1901	304,791 48
Addition to Repair and Improvement funds	...	...	...	...	...	...	...	405,000	—	Gross receipts and Interest	8,987,675 12
Disposition and Valuta funds...	...	...	...	...	...	...	...	800,000	—		
Loss by exchange	...	...	...	...	...	...	...	26,540	—		
Net profit...	...	...	...	...	...	...	...	5,596,296	61		
Distribution:											
Reserve funds	...	...	...	...	...	M	264,575.25				
Special Reserve funds	...	...	...	...	...	"	264,575.25				
Dividend 5 per cent.	...	...	...	...	...	"	2,700,000.—				
Directors' fees	...	...	...	...	...	"	103,117.73				
Government Taxes:	...	...	...	...	...	"	116,235.46				
Extra dividend 2½%	...	...	...	...	...	"	1,350,000 —				
Special shares	...	...	...	...	...	"	675,000.—				
Carried forward	...	...	...	...	...	"	122,792.02				
						M	5,596,296,61	9,292,466	60		9,292,466 60



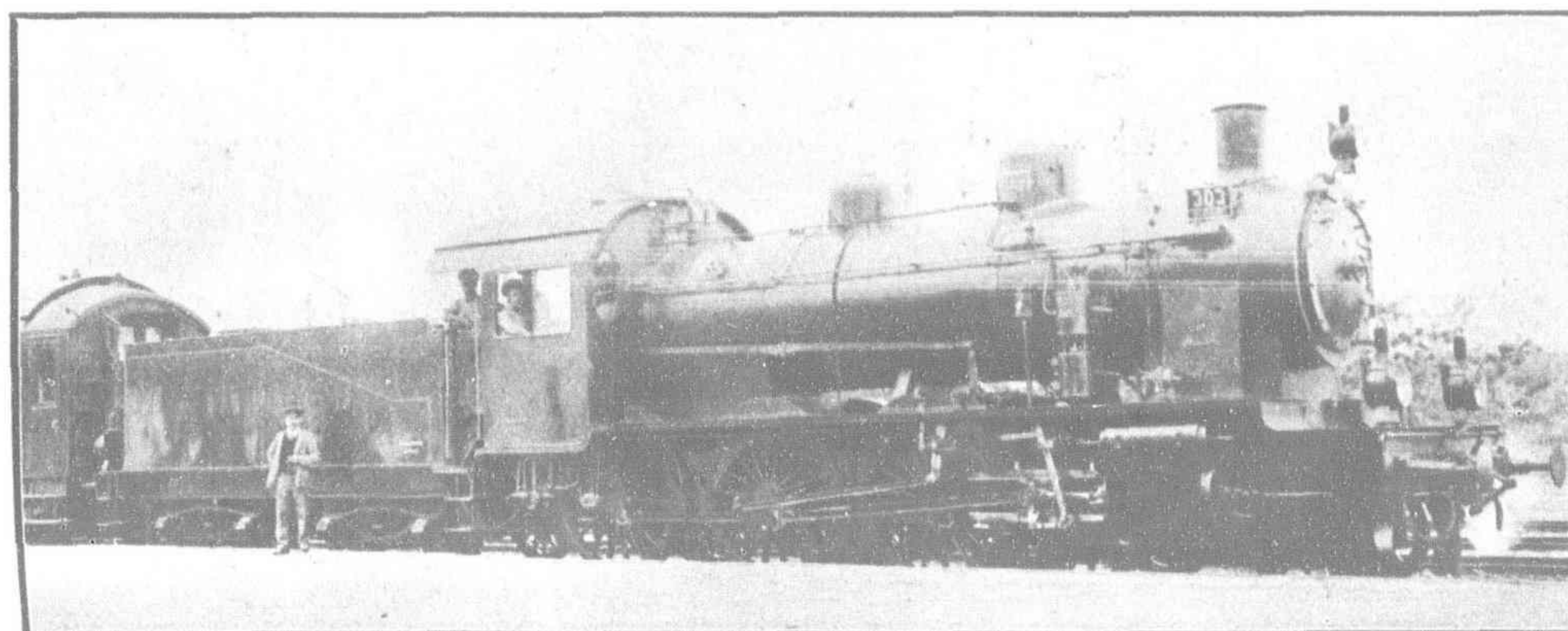
A Saloon Car.



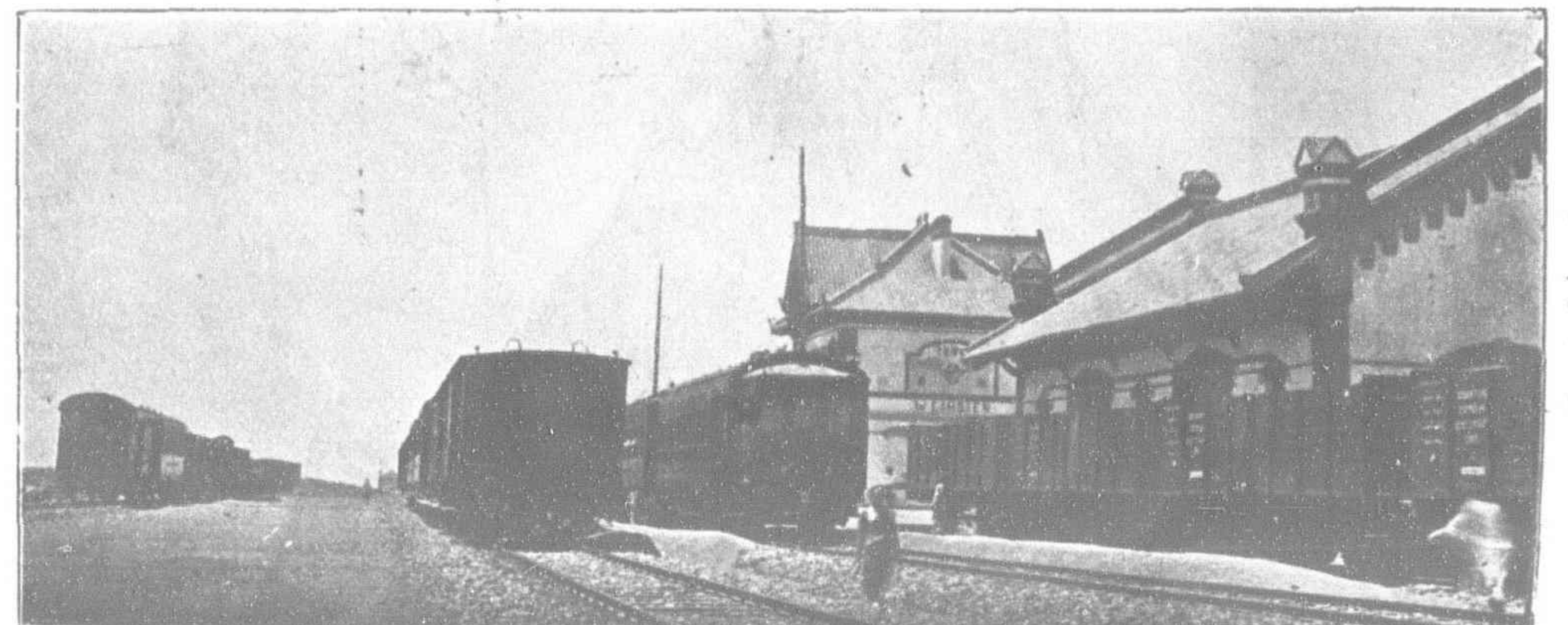
Restaurant Car.



An Express Train.



An Express Locomotive.

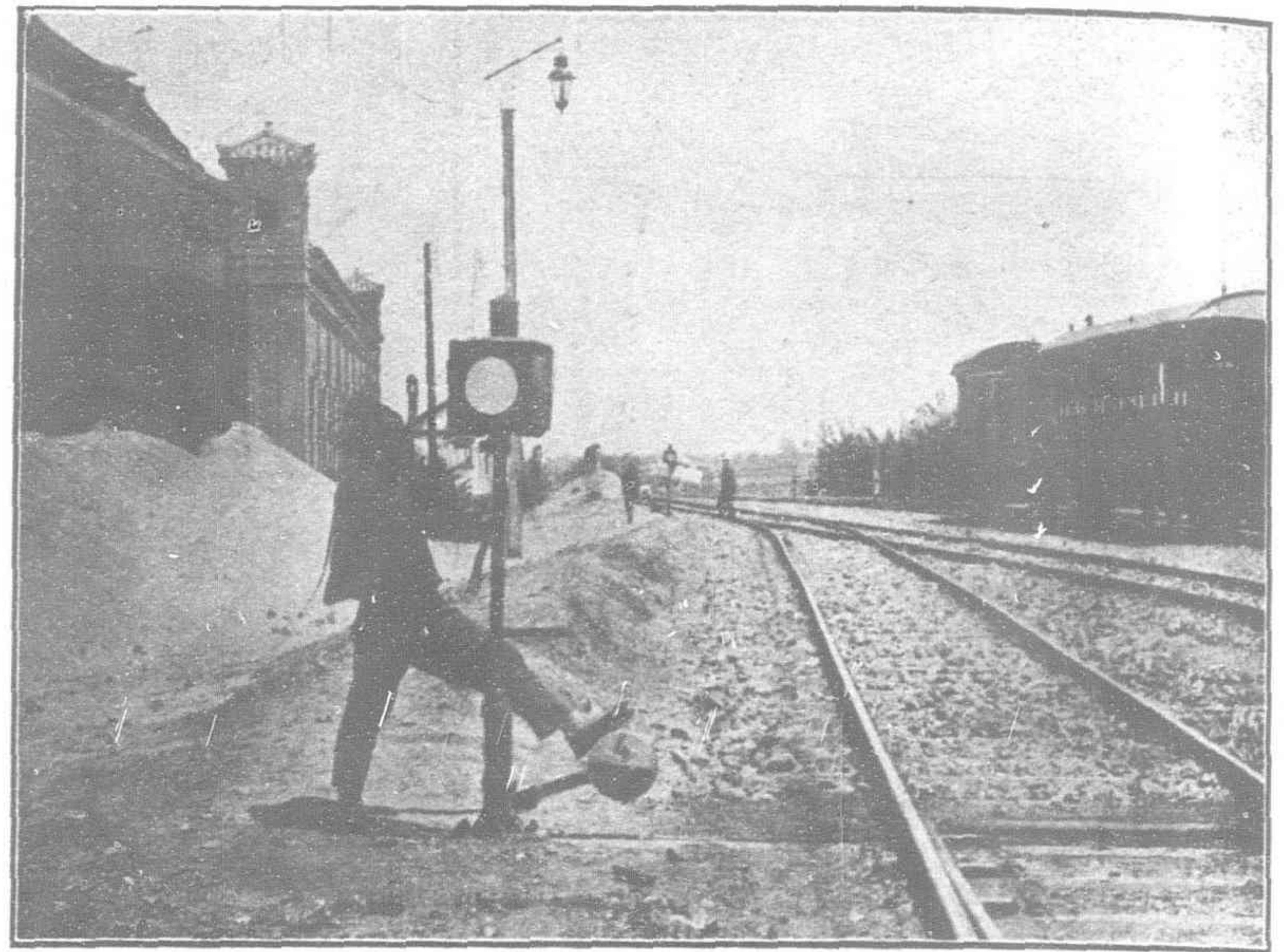


Weihsien Station.

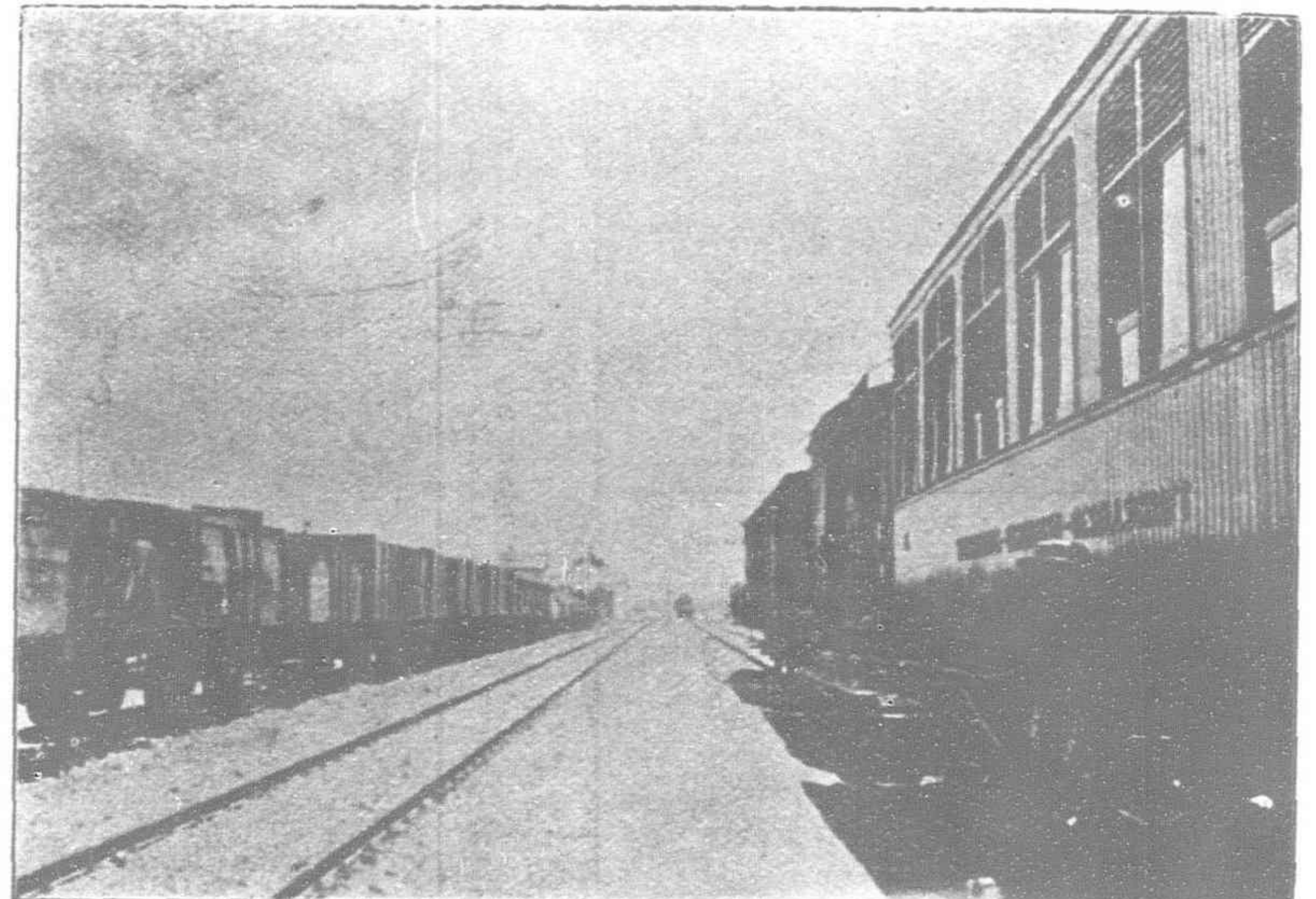
DISTRICTS SERVED BY THE RAILWAY.

There are 55 stations on the main line and four on the Poshan branch.
The principal places served are as follows:—

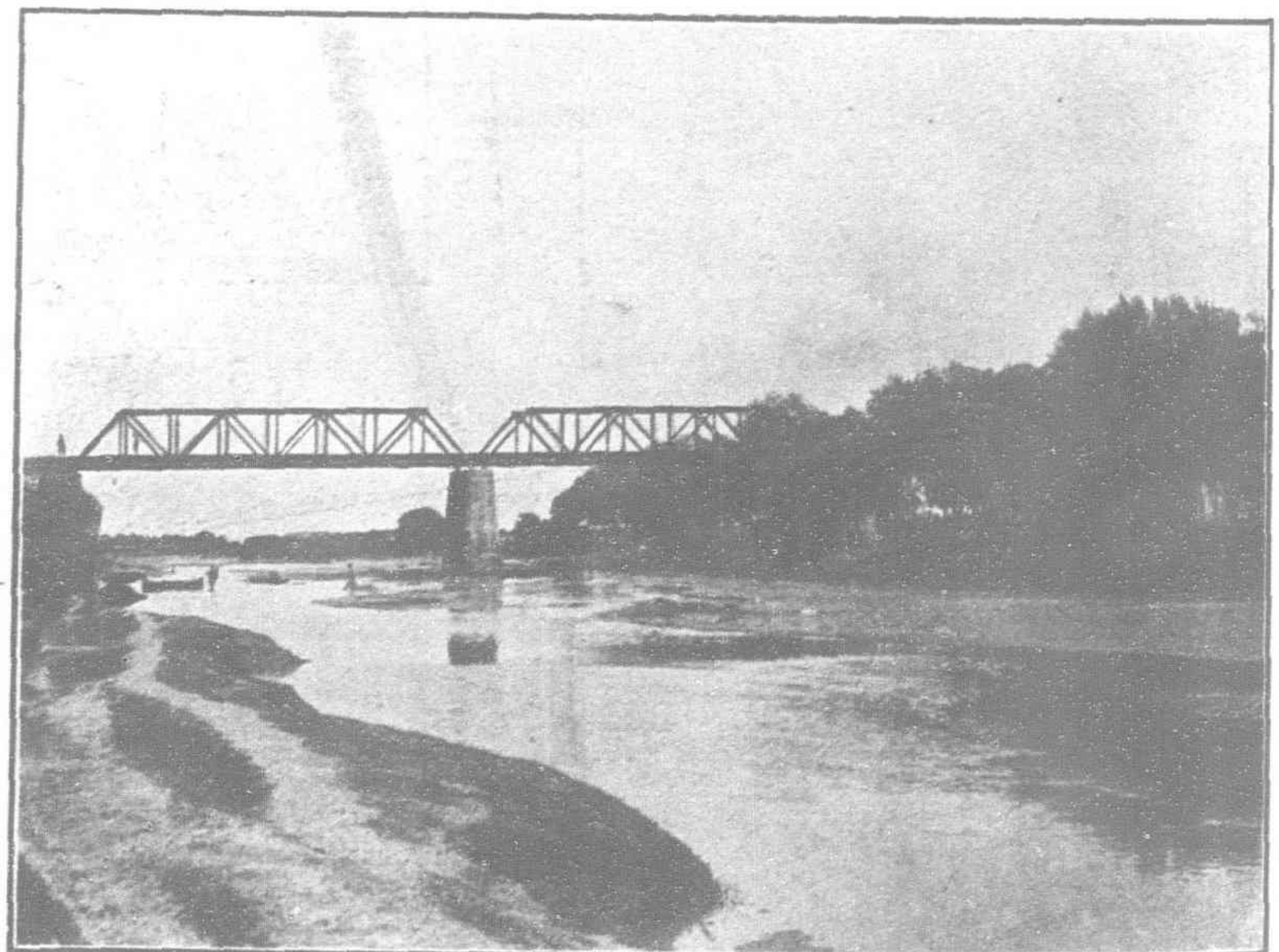
	Distance, Kiloms.	Remarks.
Tsingtau ... ..	...	Seaport, fortress and summer health resort. Permanent civil population, about 30,000.
Grosser Hafen	3	Station for Tsingtau harbour, &c.
Syfang	8	Railway repairing sheds, &c.
Tsang'ou	18	Small ports on shore of Kiaochou Bay
Nükuk'ou	28	
Nanchuan	47	
		Point of access for Chimo, also for Pingfu Chou and surrounding straw braid producing district.
Kiaochou	81	Capital of sub-prefecture. Very large city. Was in occupation of German troops till the beginning of 1906. Point of access for straw braid districts. Point of junction with proposed South Shantung (Kiaochou-Ichou Fu-Tsinan Fu) line, sanctioned in the Kiaochou convention with Germany of 1898, but not made.
Kaomi	107	District city, like Kiaochou, evacuated by the German troops in 1906.
Fangtze	183	A flourishing town with a European population of about 100, and a Chinese population of several thousand, has grown up here in connection with the coal mines of the Schantung Bergbau Gesellschaft. It is the chief coal mining centre in Shantung. The first shaft sunk (252 metres) is about a mile south of the railway, with which it is connected by a short branch. A second shaft (about 350 metres) has been completed this year, close to the railway on the north.
Weih sien	196	A large city, probably 100,000 inhabitants, silk, embroidery, &c. Point of access for silk centre of Chang-i Hsien. A prospectus has been published of a proposed railway hence to Chefoo (226 kiloms.) via Chang-i Hsien, Laichou Fu, Huang Hsien, and possibly Têngchou Fu. The 17th regiment of the Luchün army has been stationed here for over a year. A "Branch Commercial Settlement," under the direction of the Tsinan Fu Commercial Settlement Bureau, was laid out here, and declared open to foreign trade and residence in 1906, but has not been developed. The town has long been a centre of missionary activity:— Union College (Presbyterian and Baptist), with extensive premises to the east of the city.
Ch'ingchou Fu	255	Capital of department. Formerly a large city, now much decayed. A Manchu garrison formerly occupied a separate walled city to the north. Centre of missionary activity, with Theological College, &c.
Tsê-ho Tien	270	Railway bridge over Tsê ho. Place wholly of historical interest. Lin-tzu Hsien, 10 miles to the north, is the ancient capital of the kingdom of Ch'i, some twenty of the kings being buried in tumuli close to the railway line.
Chiu-ling Chên	290	Hill to the north of the line containing iron ore (64 per cent.)
Ch'ang-tien	302	Junction with branch line to Poshan
On branch line—		
Chih-ch'uan (Tsechuan)	32	Large district city. Important coal mining centre. Schantung Bergbau Gesellschaft has a mine at Hungshan, connected by short branch with Chih-chuan station.



A Pointsman at Work.

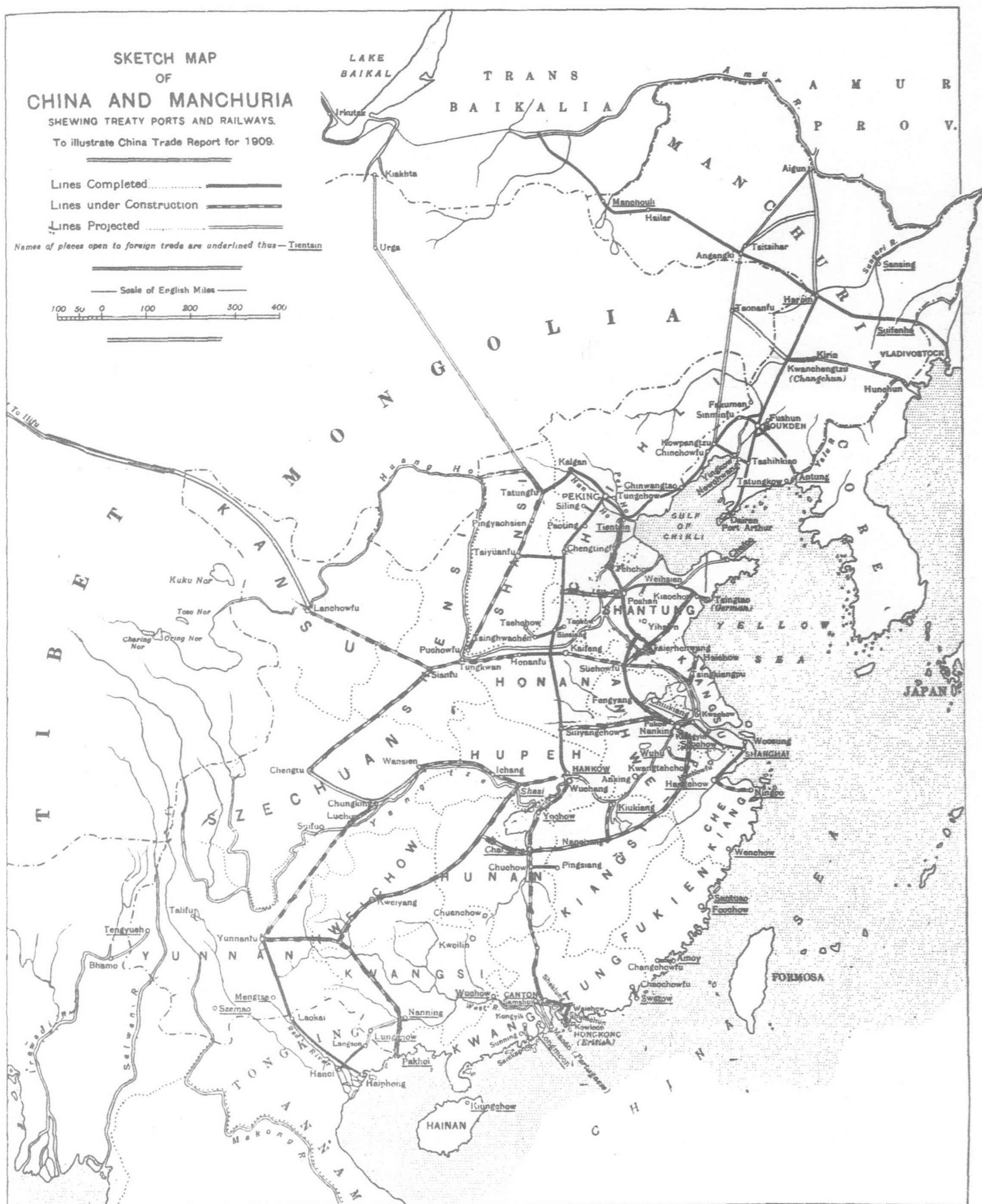


Tsingtau Train Yard.

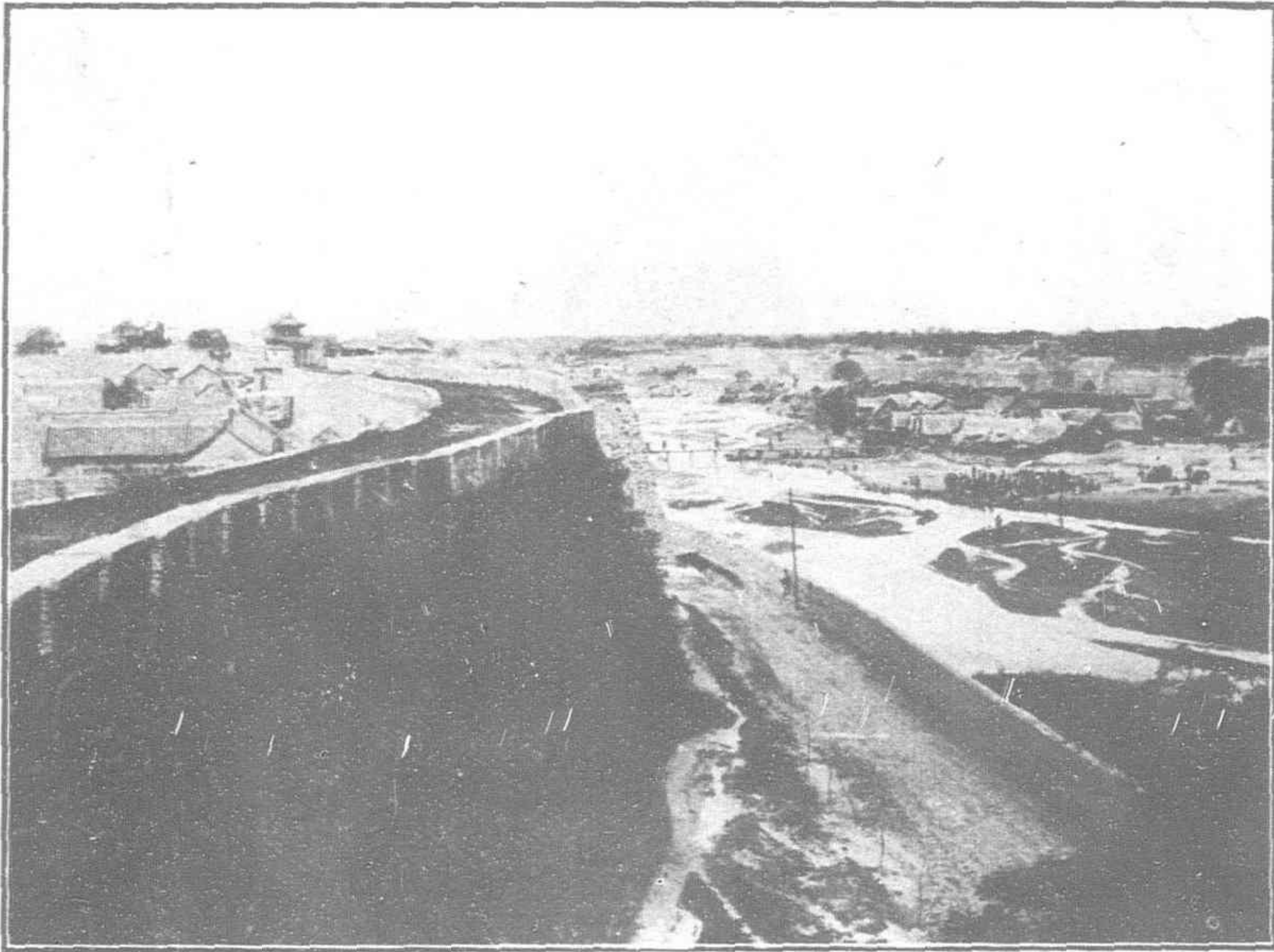


A Bridge over the Pailang-ho near Weih sien.

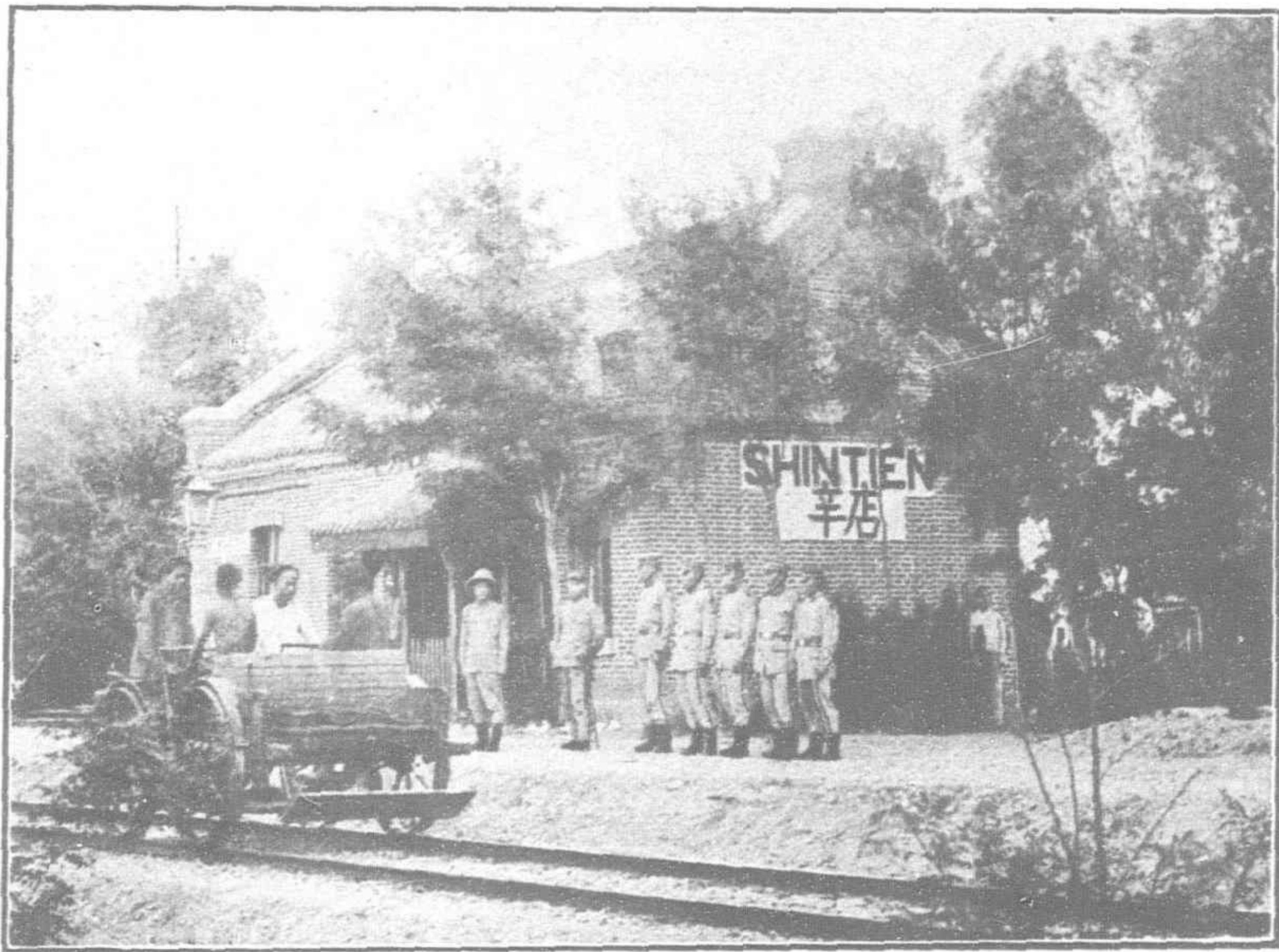
SHANTUNG RAILWAY VIEWS.



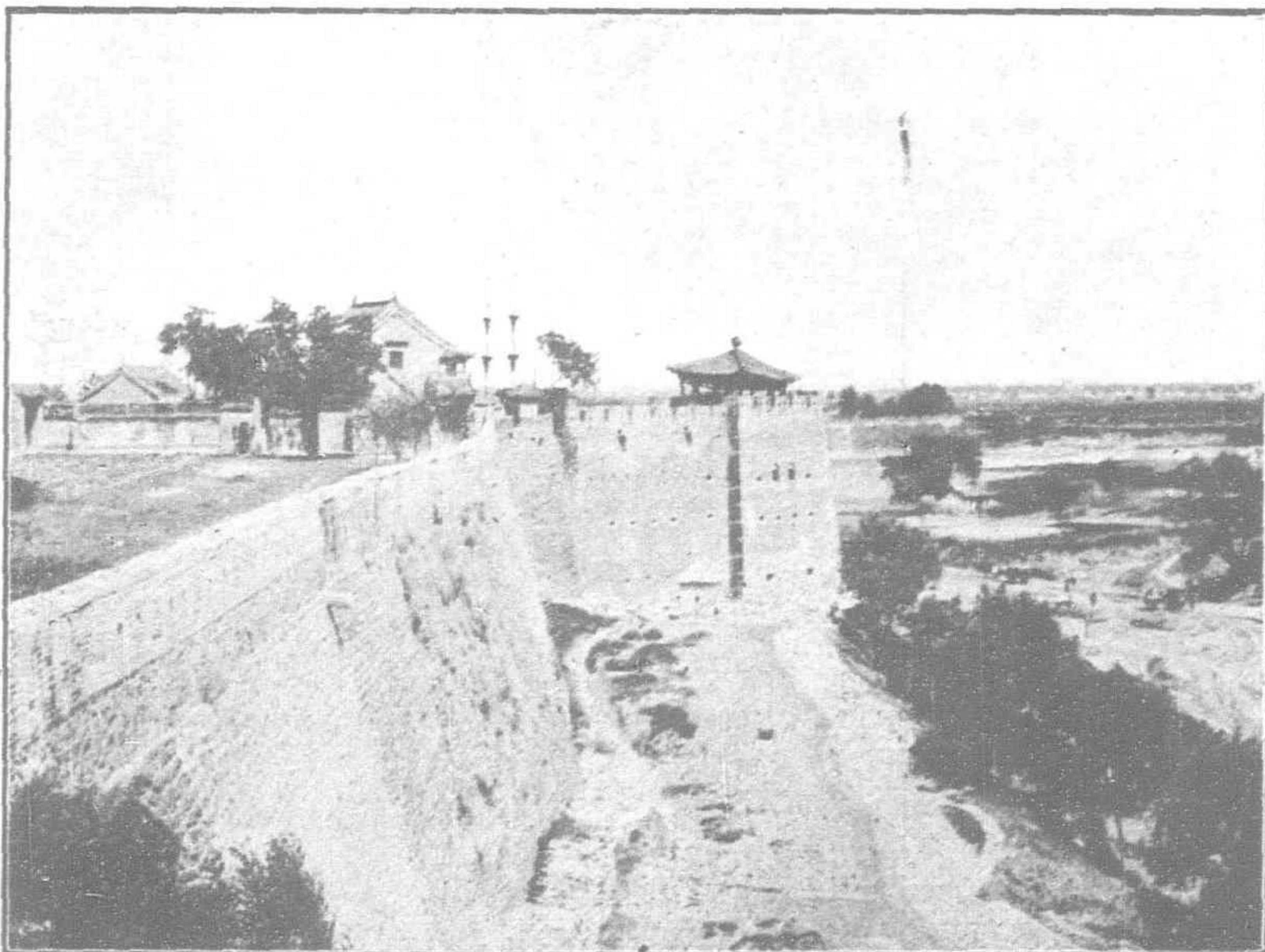
RAILWAY MAP OF CHINA, showing relation of the Shantung lines to the general system.



The Pailang River at Weihsien.



Guard at Shintien Station.



The Wall of the City of Weihsien.

SHANTUNG RAILWAY VIEWS.

Poshan 43

Large district city in very populous valley. Many native coal-pits, also most important centre of glass manufacture in China. Besides many purely native establishments, the large factory of the Poshan Glass Company, with all modern appliances, was opened in February, 1907.

Main line resumed—

Chouts'un 320

Large town, equal to or larger than Wei-hsien. Principal centre of silk manufacture in Shantung. Point of access for Tsoup'ing Hsien (important missionary centre) to north, also for P'u-t'ai and other places on lower Huang-ho. Branch "Commercial Settlement" laid out and opened to foreign trade and residence, under direction of Tsinanfu Commercial Settlement Bureau, in 1906, but, as at Wei-hsien, not developed.

Mingshui 361

Important centre of rice cultivation. From Chouts'un to Mingshui the railway threads an intricate valley between high hills on both sides.

Lungshan 378

Large market town. Coal mines a few miles to the south at a place called Puchuan.

Tsinanfu, East 406

Small branch line (2 miles) to bank of Hsiao-ch'ing Ho at Hung-t'ai Chiao, continued thence by light truck line to Lo-k'ou, another 4 miles. From Huang-t'ai Chiao steam launch traffic on the canal to Yang-chiao-kou, 146 miles, has been attempted, but water is generally insufficient. Junk traffic is considerable. From Yang-chiao-kou steamers run during a portion of the year to Chefoo, sometimes calling at Lung-k'ou, and junks ply to many places on the Shantung and Manchurian coasts.

Tsinanfu, North-west ... 409

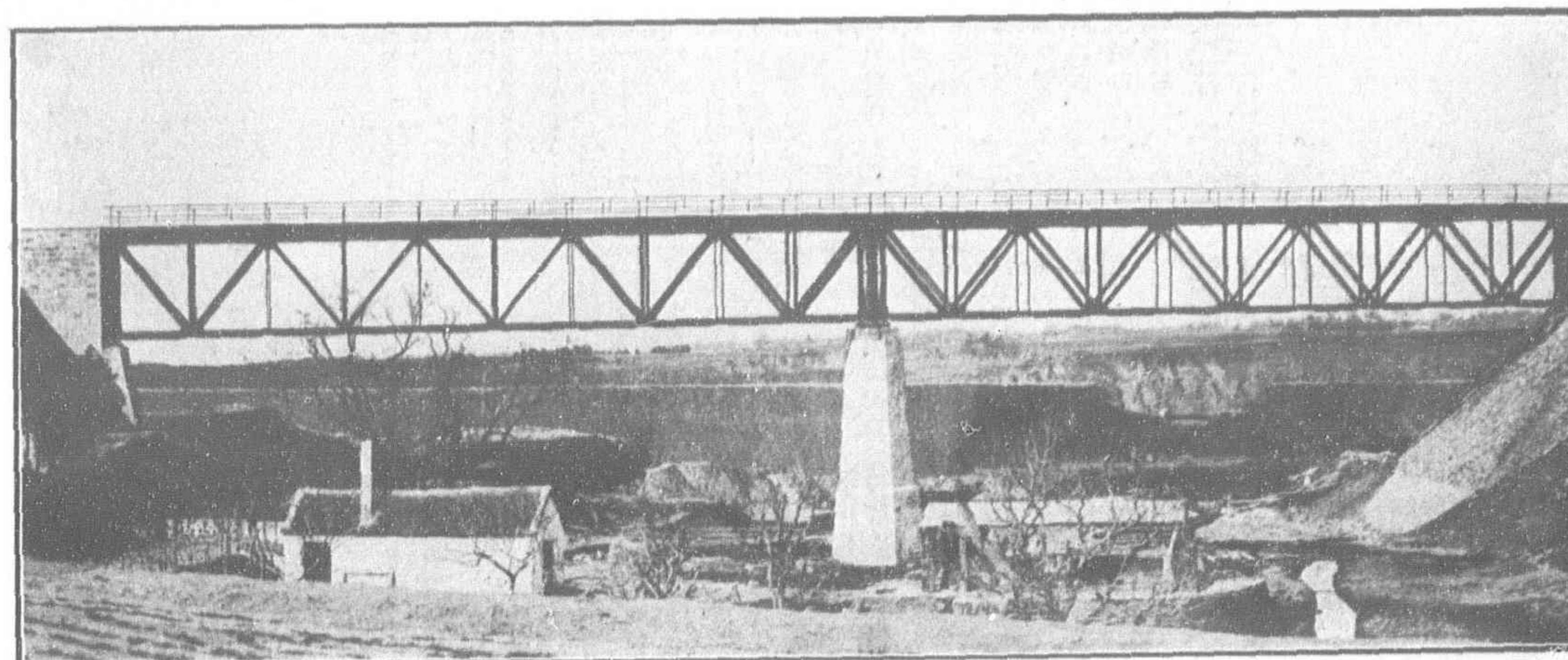
Close to north wall of city. The station, being found the most convenient for passenger traffic for the greater part of Tsinanfu, has lately been enlarged.

Tsinanfu, West 412

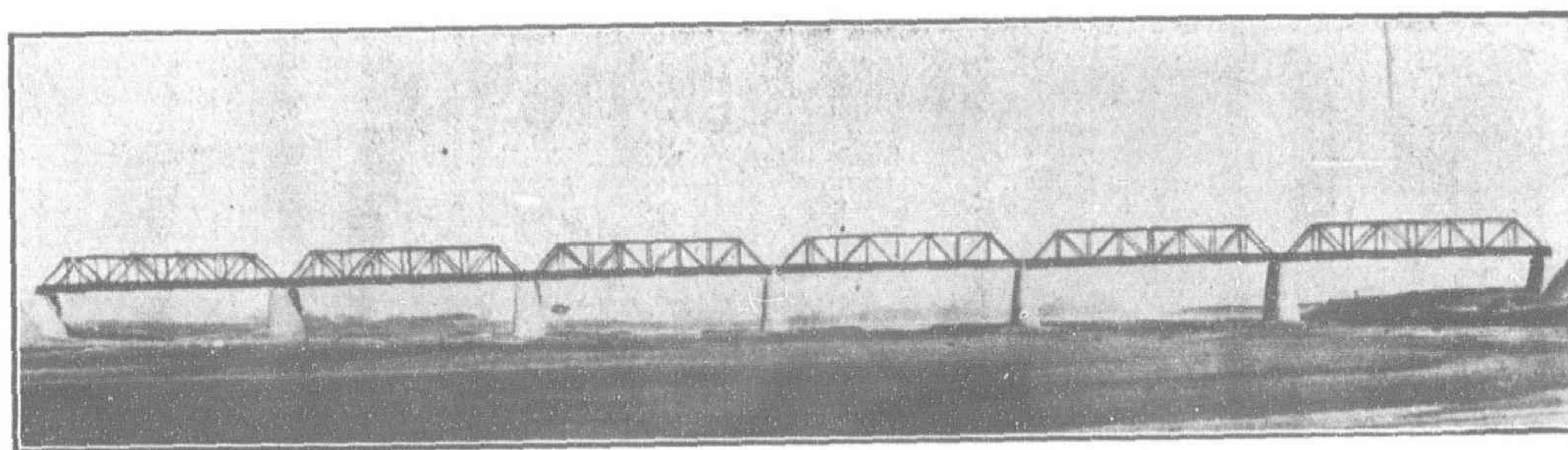
Terminus. Adjoins the "Commercial Settlement" opened to foreign trade and residence in 1906. For various reasons the foreigners resident in Tsinanfu have only in a few instances taken lots and built in the Settlement, where, however, the new German Consulate and premises of the Deutsch-Asiatische Bank are conspicuous buildings. Oil installations of the Asiatic Petroleum Company and the Standard Oil Company are near the railway line. Seven German firms and several Japanese have premises or agencies in the city, but the only British concern (apart from the Asiatic Petroleum Company already mentioned) which has agents frequently at Tsinanfu is the British-American Tobacco Company, whose wares and travellers penetrate all parts of the province and appear to do a thriving business. Other foreigners at Tsinanfu are missionaries or teachers, &c., engaged by the Chinese authorities of the provincial capital in connection with the government hospital and the various colleges.



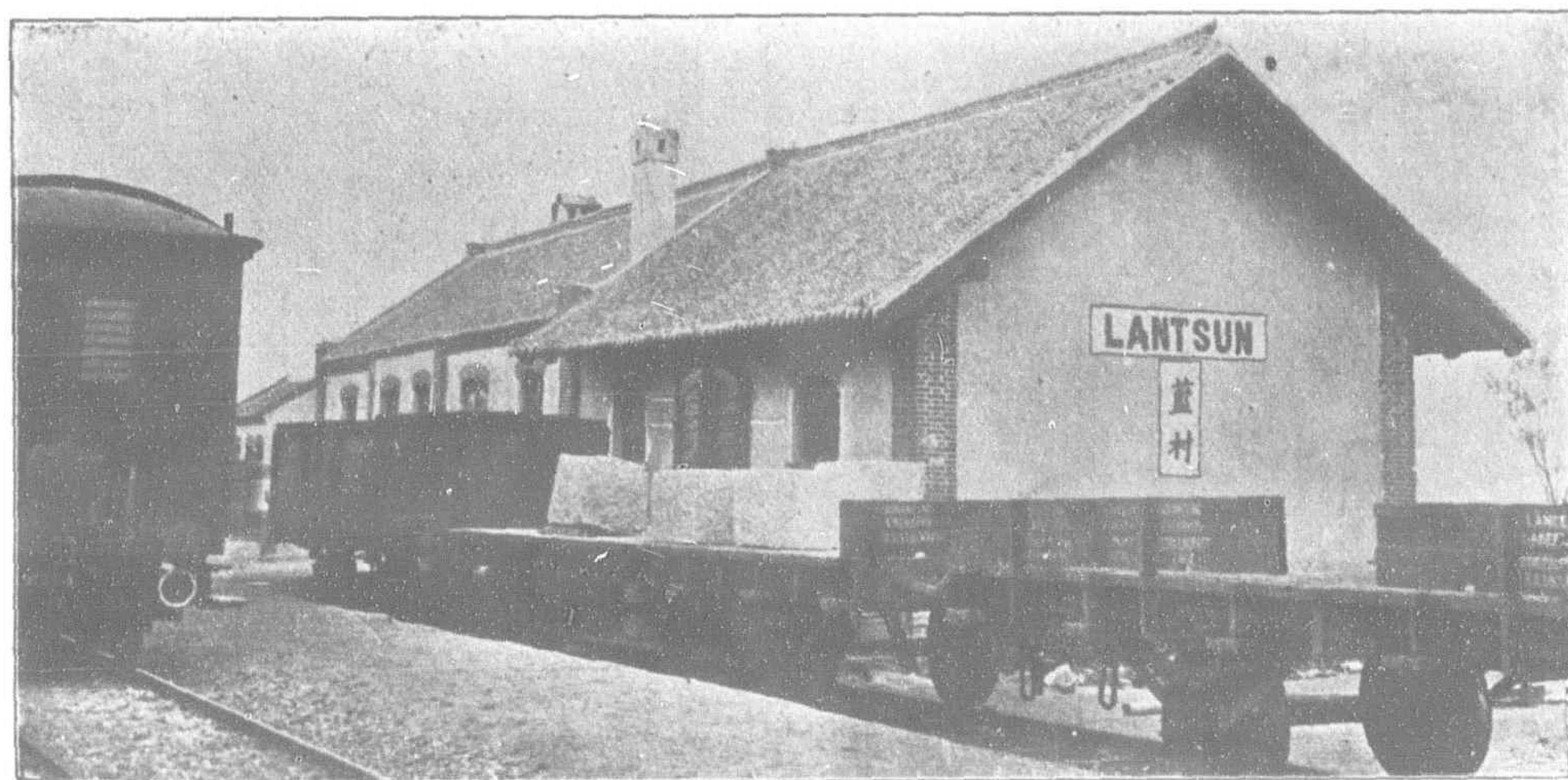
Bridge at Kilometre 144; length 272 metres.



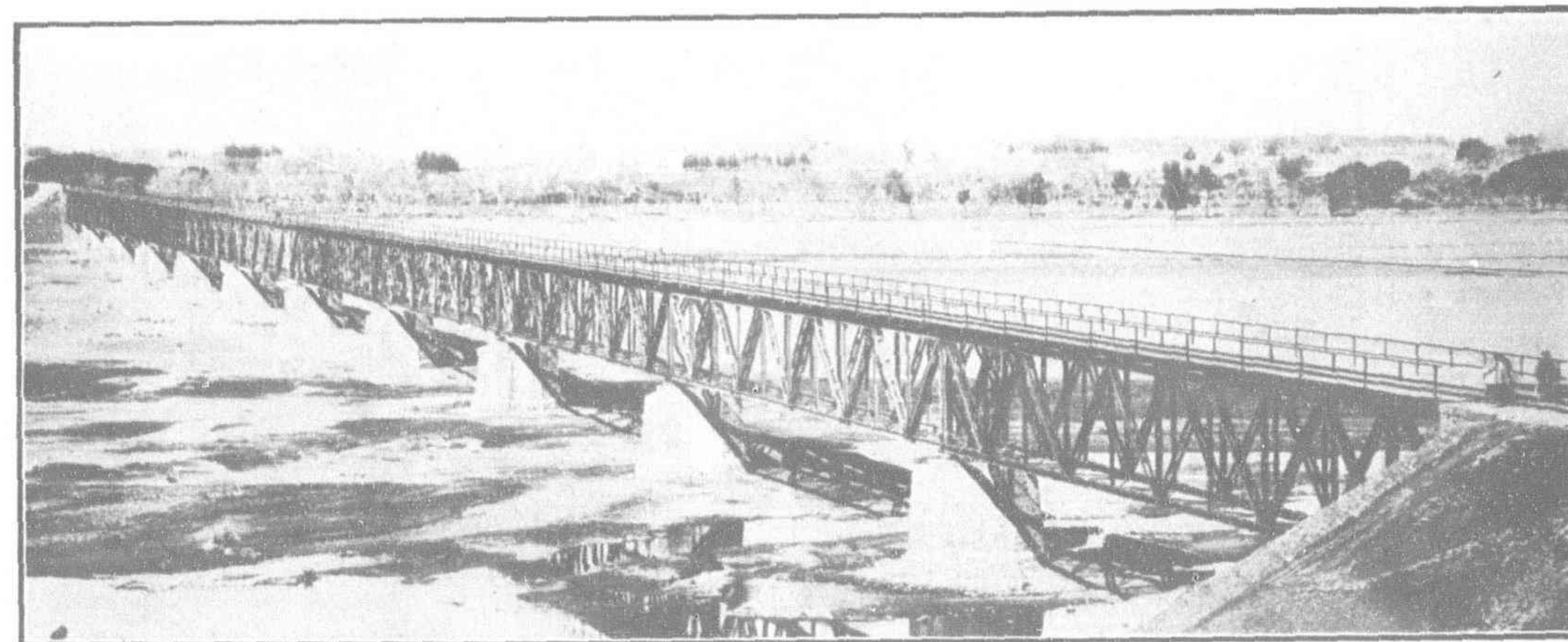
Bridge at Kilometre 316; length 80 metres.



The Taku-ho Bridge.



Lantsun Station.



Bridge at Kilometre 258; length 470 metres.

THE MINES OF SHANTUNG

COAL

Clause IV. of the Kiaochou Convention granted to Germany certain mining rights in Shantung in the following terms:—

The Chinese Government will allow German subjects to hold and develop mining property for a distance of 30 *li* from each side of these railways and along the whole extent of the lines. The following places where mining operations may be carried on are particularly specified along the northern railway from Kiaochou to Tsinan, Weihsien, Po-shan-hsien, and various other points; and along the Southern Kiaochou-Tsinan-Chinchow line, Chinchowfu, Laiwu-hsien, etc:—

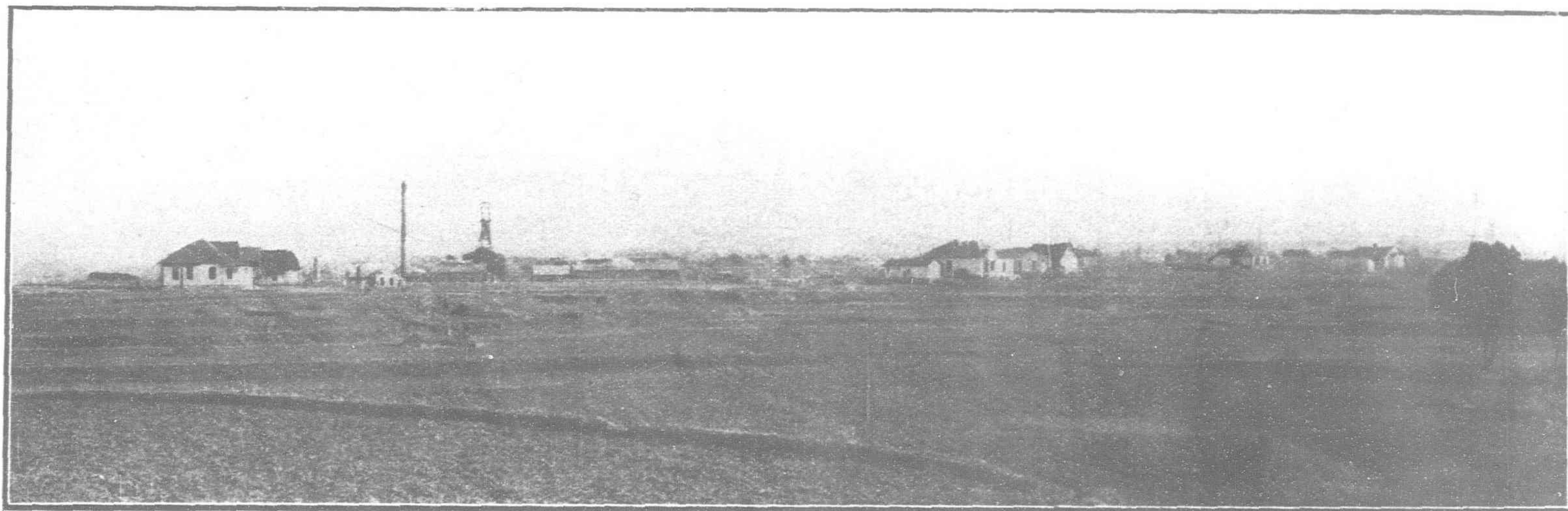
Chinese capital may be invested in these operations and arrangements for carrying on the work shall hereafter be made by a joint conference of Chinese and German representatives.

It will be noted that the Convention specifically mentions four distinct mining locations, Weihsien, Poshan-hsien and various other points on the northern line, and Chinchow-fu and Liawu-hsien on the northern line.

Under the terms of this concession a syndicate was formed in Berlin under the direction of the Disconto-Gesellschaft, and on the 10th of October, 1899, the Shantung Mining Company was registered in Berlin under the laws regulating Colonial Limited Liability Companies. The headquarters of the Company were located in Tsingtau, and operations were

pockets are found, and are separated from each by the outcropping granite. As the Chinese miner cannot go deeper than 180 feet, on account of his inability to cope with the increasing volume of water which has to be removed to permit of work being carried on, it is not known how deep these pockets are. Their lateral area is, however, so small that the Chinese have practically ceased to mine them; and as they were valueless as mines worked under modern principles, the engineers turned their attention to other places where coal had not been found on the surface. After boring for a year, during which only granite and volcanic tufa were found, they struck a seam of coal about 9 feet thick, at a depth of 450 feet, running from north-east to south-west. A shaft was sunk, and mining operations commenced. The Wei-hsien coal is bituminous containing about 30 per cent. of gas; it burns with a clear flame, and does not cake like the Japanese coal, and it has also the advantage of having a lighter smoke.

Po-shan Coal Field:—The valley of Po-shan, in which are situated the district towns of Po-shan and Tzū-ch'uan is about 20 miles long, and, from a couple of hundred yards at Po-shan, nearly 6 miles broad where it joins the North Shantung plain, near Chou-ts'un. The whole of this valley is a vast bed



The Hungshan Coal Mines.

commenced with a capital 12,000,000 Marks. Mining Experts were sent out to investigate and report on all the known deposits comprised within the area of the Concession.

The concession on the northern line extends to an area of 30 *li* on either side of the railway and embraces the two valuable known coal-fields—Fangtze about 170 kilometres (= 102 English miles) from Tsingtau, and the valley of Po-shan and Tzū-ch'uan about 290 kilometres (= 168 English miles) from Tsingtau, adjoining which are the iron mines of the T'ien-shan near Chin-ling-chên.

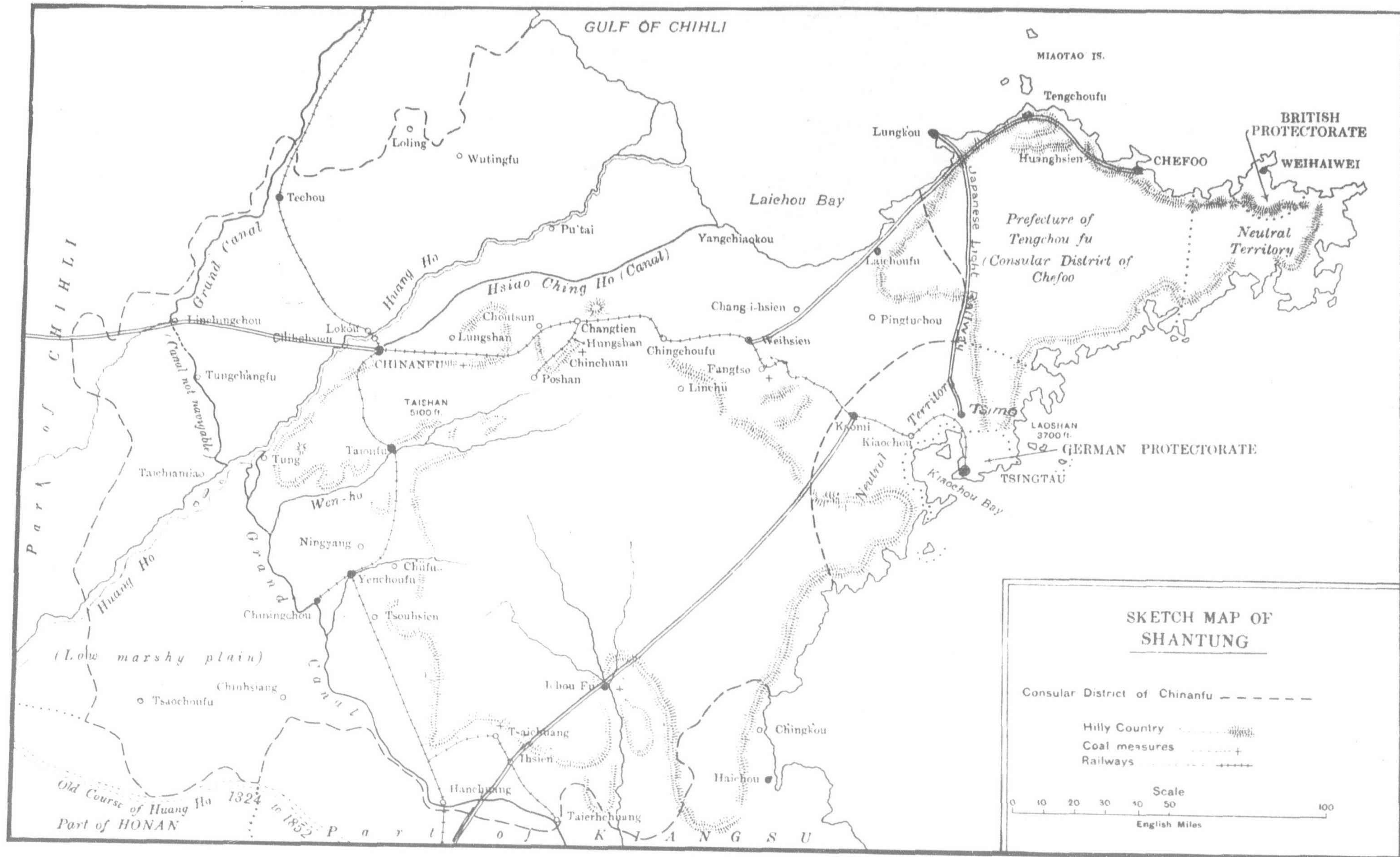
Wei-hsien Coal Fields.—The coal fields of Wei-hsien are remarkable for the irregularity in the distribution of its coal seams; and the preliminary boring trials indicated that the whole of the surrounding country was at one time the scene of violent volcanic eruptions, which so disturbed the coal deposits that nearly a whole year was lost by the mining engineers in finding a continuous seam.

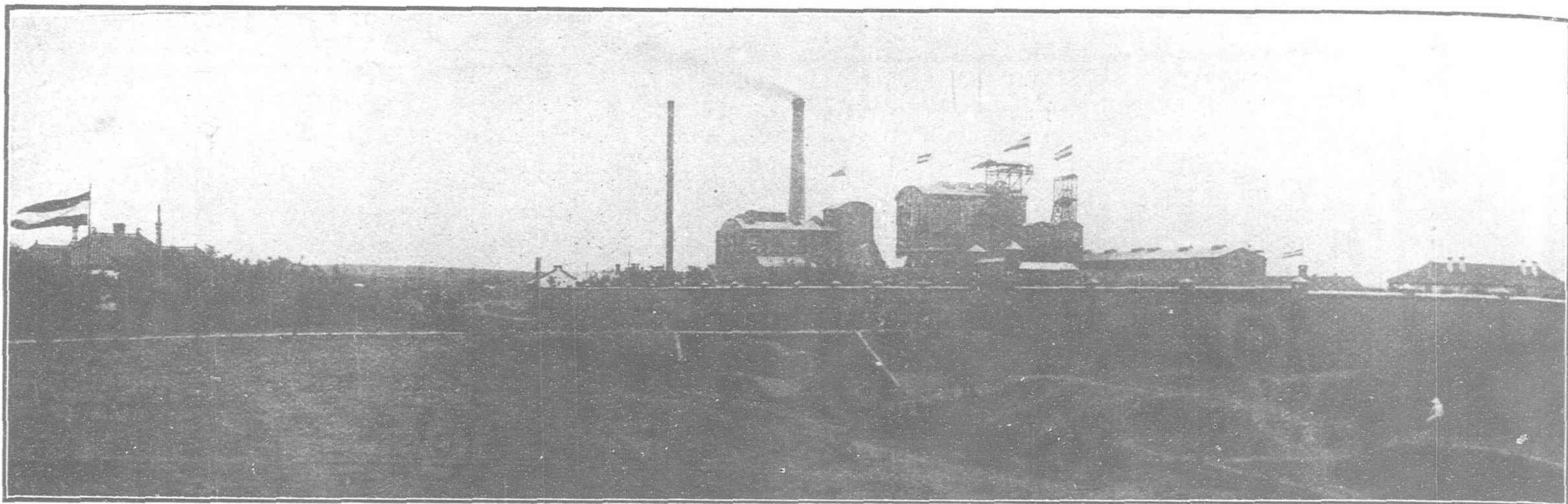
The theory advanced to account for the pockets of coal embedded in the granite which were discovered and exploited by the Chinese is that the action of water on the uneven surface of the subsidiary bed of granite caused deposits of coal-forming vegetable matter in the crevices, where they could not be washed away, leaving the upper surface of the granite bare. The remains of the Chinese shafts are distributed in small clusters where these

of coal, situated at a deeper level in the middle and appearing on the surface at the edges, where it has been forced upwards by the pressure against the limestone of the surrounding hills. At the north-west exit of the valley the coal bed is interrupted by a chain of limestone hills; but it commences again and continues in undiminished quantity in a westerly direction, for another 20 miles, between the main range on the south and the Chang-pai-shan on the north. In this valley and its branches are situated the mining centres of Pu-chi and Pu-chuan.

South of the narrow gorge at Po-shan another valley opens out, in which is situated the Hei-shan or Black Hill, in contrast to the Hung-shan or Red Hill, so called from its ruddy appearance, which lies to the north-east of Tzū-ch'uan, near the entrance of the valley.

The best quality of anthracite coal is found near the surface in the Hei-shan Valley, and it is on account of this coal that Po-shan has been famous. It is principally used in manufacturing coke, which, owing to its lightness, can be transported further by wheelbarrow than the heavier coal. Po-shan coke is used at Ch'ing-chou-fu, Chou-ts'un, and at Tsinanfu and was even sold at Kiaochou, a distance of 500 *li*. Unfortunately, the Chinese were unable to cope with the waters in the shafts, and most of the mines were obliged to suspend work. The





Mines of the Shantung Mining Company.

method of removing the water is extremely primitive. A basket woven of willow twigs is passed from one man to another, and is then emptied into a ditch at the mouth of the coal pit. As the galleries are low and narrow—about 3 to 4 feet in diameter,—the miners are obliged to work in a sitting position, and during the time that water is being removed from the mine other work has to cease. The side galleries are short, and are shored up with millet stalks supported by short wooden props. In a country devoid of timber the cost of shoring up extensive galleries, and, in addition, the difficulty of removing the water, is so considerable that the miners are prevented from going far into a seam of coal. The cost of timber may also account for the small diameter of the galleries, which, if enlarged, would need extra support.

The coal, loaded on low, wooden trucks, with iron wheels manufactured at Chin-ling-chên from T'ieh-shan iron, is run along the galleries on wooden ways until the bottom of the main shaft is reached, and is then hoisted by wicker basket attached to a pulley on a framework built over the mouth of the pit, pulled by horses.

The Tzū-ch'uan coal mines, worked by Foreign machinery supplied by an English firm, were, closed in 1891. In 1898, the machinery having been partially repaired at the Tsinan Arsenal, it was put up by a Cantonese at the foot of the Hung-shan, at a place called Nan-p'u, and used instead of a pumping apparatus. The Native coal pits, being situated at a higher level, were thereby drained of the water which had put a stop to their working. Work was resumed with great vigour, and the Cantonese drew a royalty for keeping the mines dry. The Hung-shan surface coal is not as good in quality as that from the Hei-shan mines, and is not suitable for coke. The best quality lump costs from 5 to 6 large cash a catty at the mouth of the pit; 2nd quality, about 3 cash; and dust, from 1½ to 2 cash. The transport by wheelbarrow has been calculated at about 12 cents a ton per *li*, and this must necessarily limit the consumption of coal to a very small radius, notwithstanding its low initial cost. At Tsinanfu for instance, a ton costs \$20.

The Shantung Mining Company, in the supposition that the superior Hei-shan coal which crops out at the head of the valley is the continuation of the main coal bed, centered their operations to strike it at a lower level, nearer the main railway line which crosses the entrance of the valley at Chang-tien, thus reducing the distance of the subsidiary line from the mine to the junction with the main line at Chang-tien.

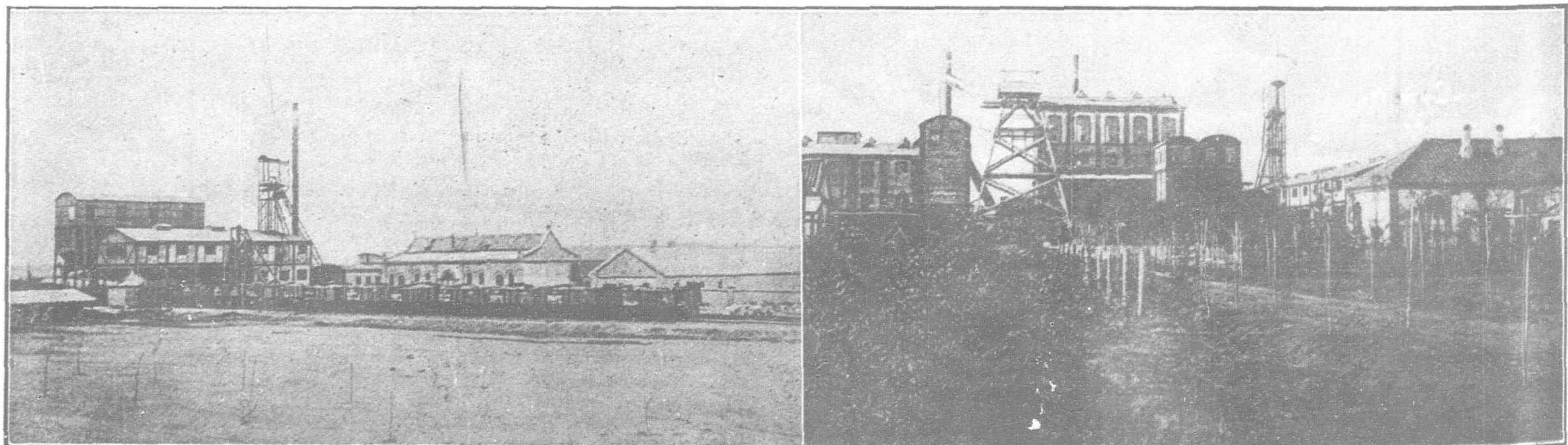
Eight miles to the north-east of Chang-tien are the important iron ore deposits of the T'ieh-shan, which furnish the ore for the Chinese iron-smelting works of Chin-ling-chên.

The German mining parties concentrated their efforts to locate Coal at Weihsien, Poshan, Putsan, Putschi, Tawenkou, Ihsien and Kuetschow and for iron ore at Chinlingchen. The combined results of all the geological researches proved much less than they had been led to expect from the exaggerated Chinese reports. Many stories and legends abounded about the presence of Gold, silver and lead and large diamond Mines near Yichowfu, which on examination proved to be greatly exaggerated.

The Germans therefore decided to develop the coal fields at once. Coal deposits were located in most of the inlets of the mountain chain bordering on Tsinanfu. Yhsien, Itschou, Kuetschow, Tsingtschoufu, later on, however, these were wholly or partly washed away, and through volcanic influence finally displaced and partly demolished.

It is, however, owing to these same volcanic disturbances that connection was established with the older numerous metallic veins in the mountains, which as already mentioned, are not worth mining, the one exception to these being the large magnetic iron deposit near Chinlingchen of extremely good quality, and in addition a similar deposit, but less valuable on account of the silics contained, in the neighbourhood of Yhsien.

On the completion of the general geological researches made, it was decided that following the progress in the building of the railway line, a further special investigation of the remaining mining grounds should be conducted.

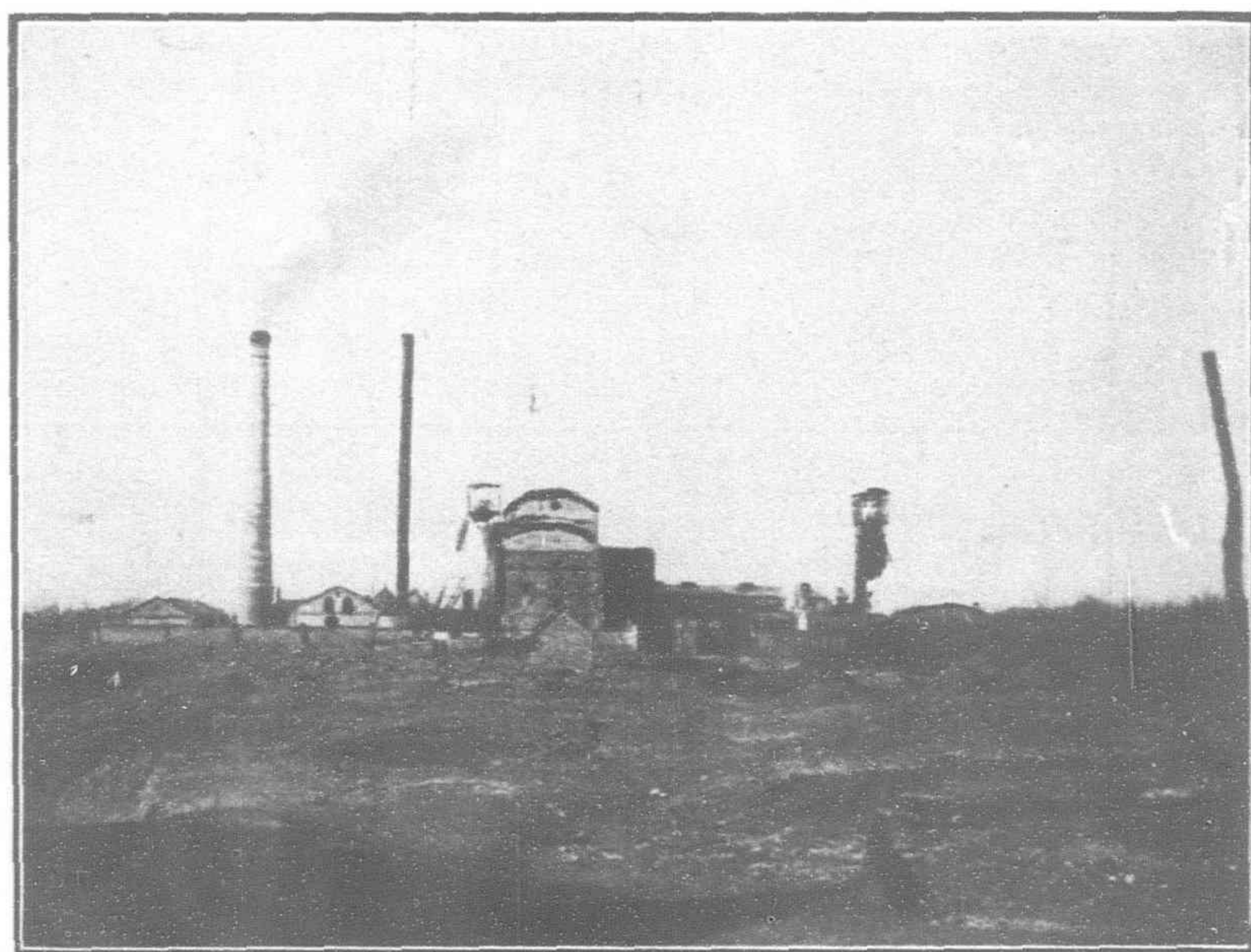
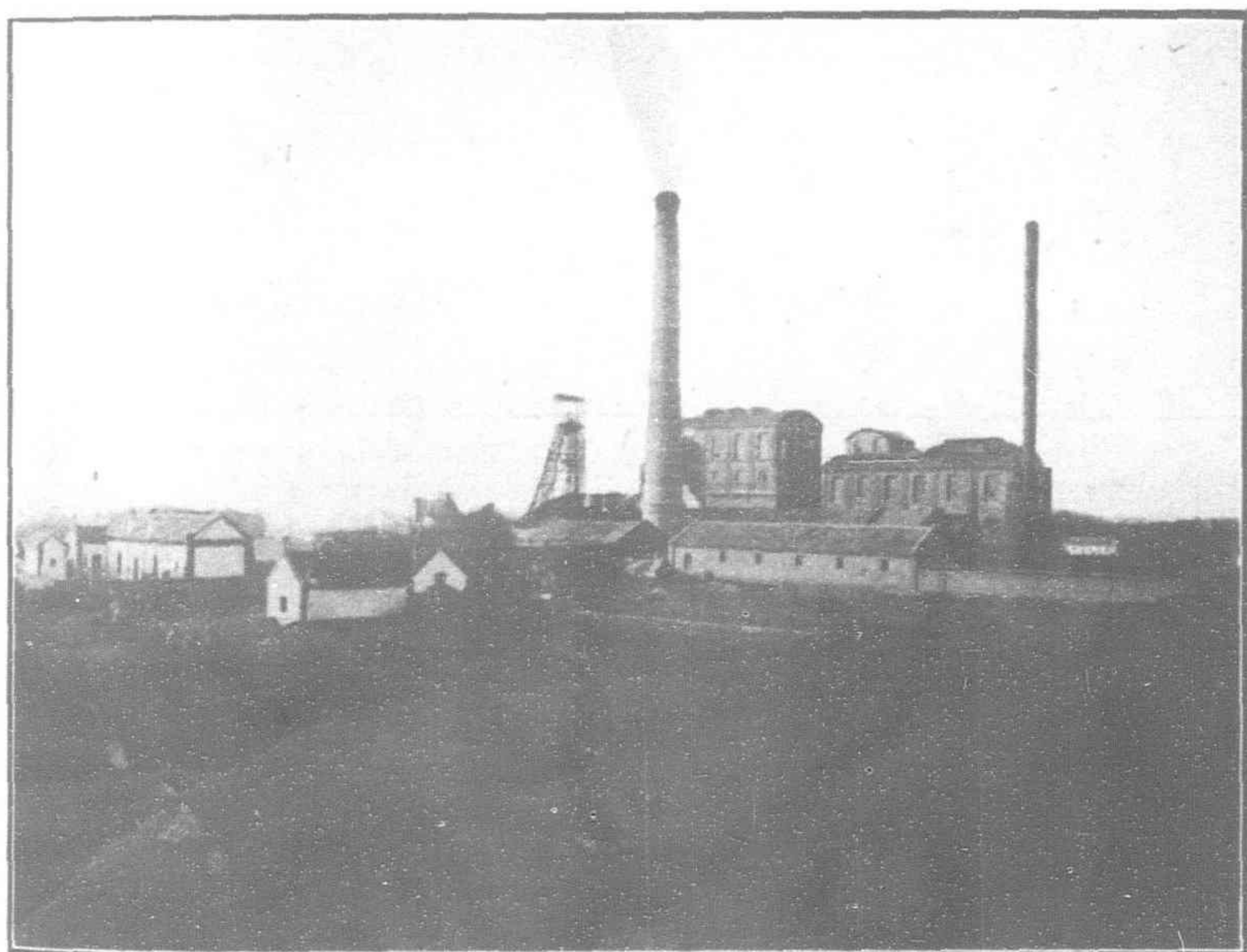
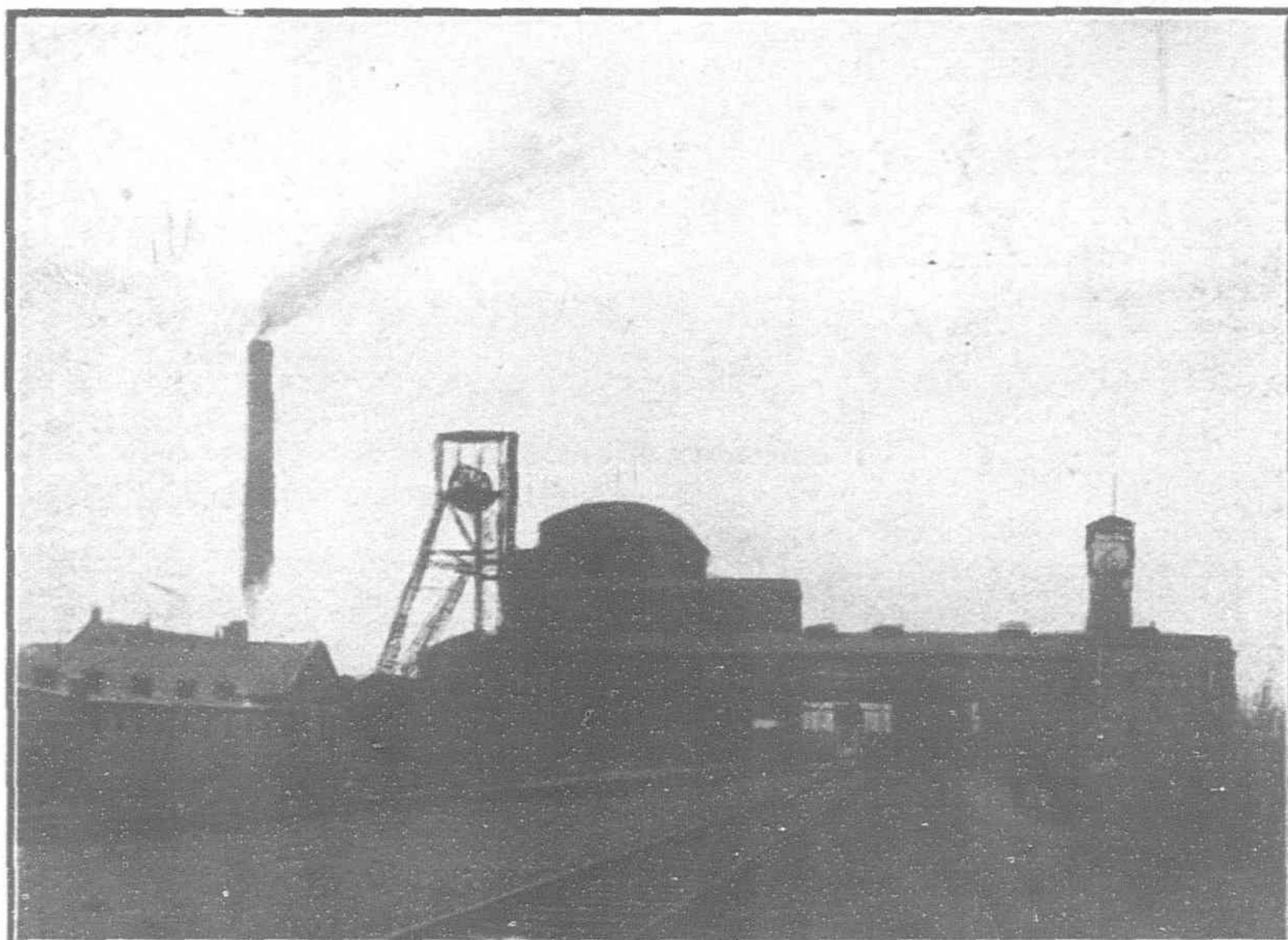
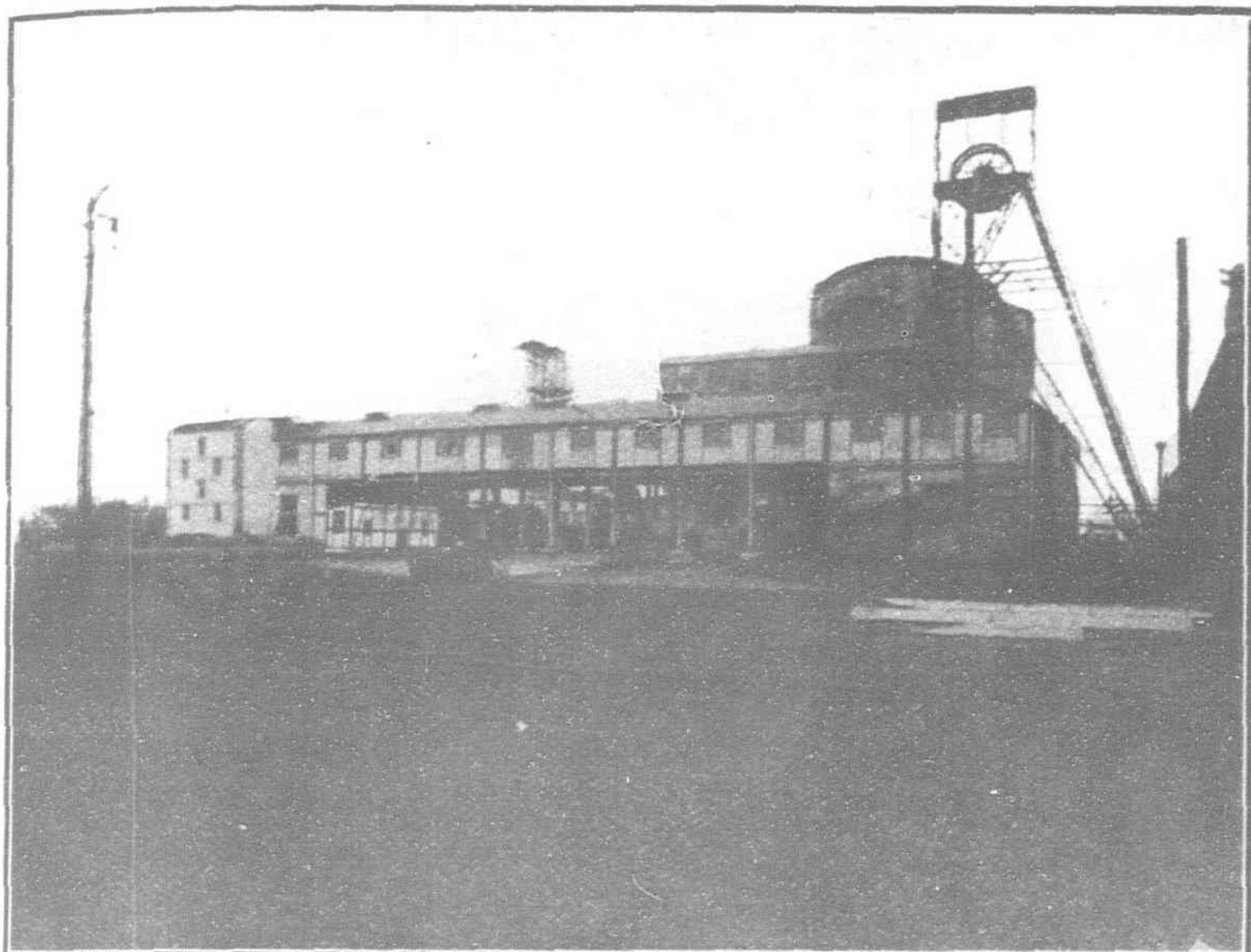


Shafts of the Shantung Mining Company at Fangtse.

As a result of the special investigation of the Weihsien fields, the Company decided to erect Mining Works there to provide for an output of from 600 tons and a probable increase to 1,000 tons daily. This work was commenced in 1901. When the mine was opened it was found there were three strata, the top one of which 2 metres thick was not worth mining; 40 metres beneath this in a depth of 175 metres the principal stratum was found of about 4 metres depth. The coal contains about 30% of Gas and about 15% ash, and shows a heating power of almost 7,000 calories. Porphyrite presses closely on the coal in parts. A third stratum 35 metres further deep, of about 3 metres depth, is shown to be robbed of a great deal of its gas in parts by the porphyrite, but in better situations has still 20% of gas, although

The statistics of the Weihsien Mine for the various years were as follows:—

1902/03	9,178.62 tons
1903/04	50,601.03 "
1904/05	100,631.06 "
1905/06	136,990.00 "
1906/07	164,437.05 "
1907/08	149,307.00 "
1908/09	250,214.05 "
1909/10	273,354.05 "
1910/11	193,497.05 "
1911/12	205,185.00 "
1.4.12-31.12.12-126,215.00 tons	1913.....199,000.00 tons.



THE FANGTSE COAL MINES.

1. Works with Coal Washer and Briquette Factory—from the south.
2. Main Entrance from West.
- 3.-4. General View from the East.

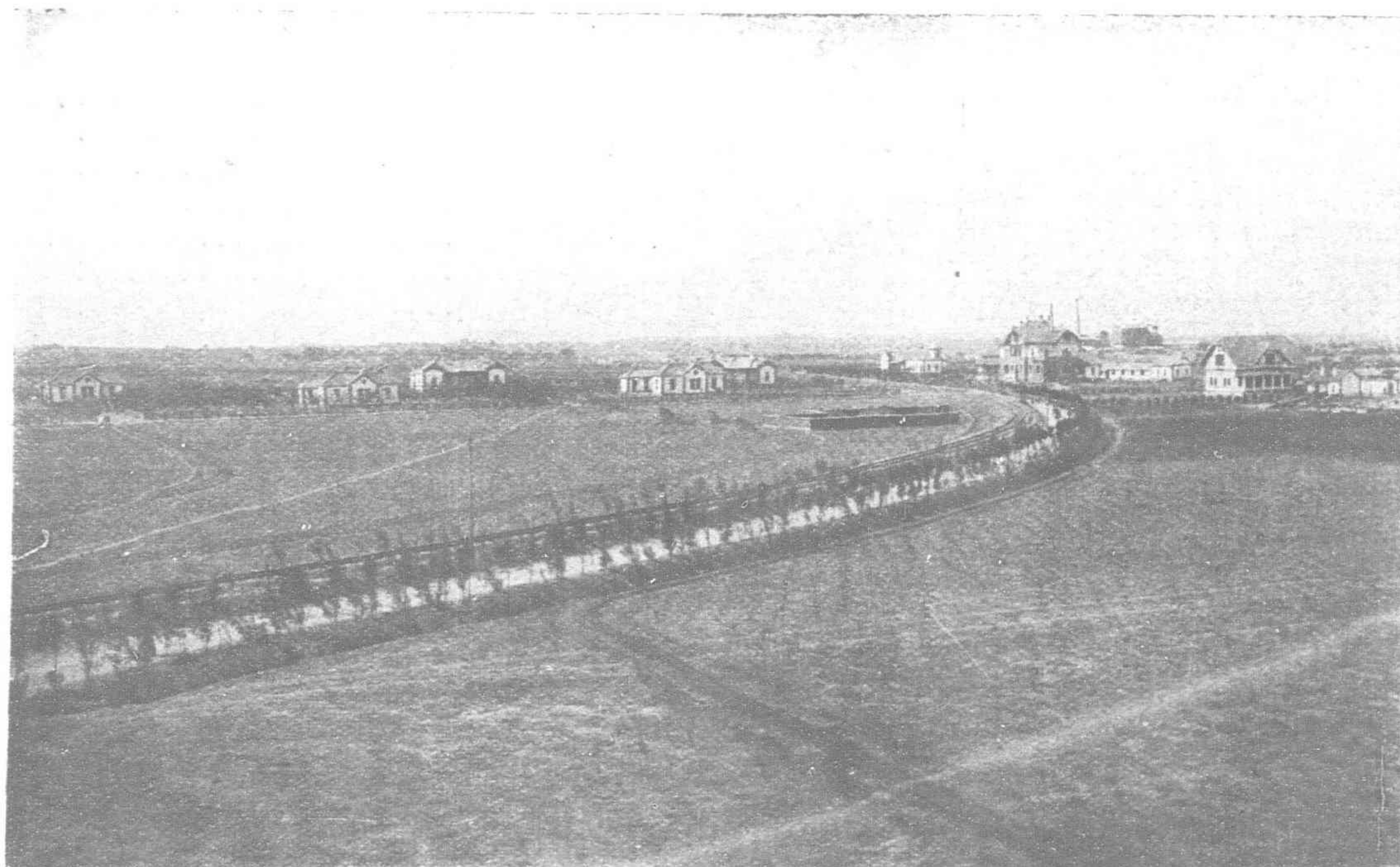
unfortunately it contains quite as large an amount of ash. Mining was therefore possible only in the principal layer, whilst the under stratum was used as far as possible for inland supply. As expected, the coal was used largely, for stationary boilers and heating coal in the private and industrial establishments in the neighbouring region and the regions beyond as far as Chingchoufu.

The output did not prove to be so large as was expected at first, so it was decided to make no further extensions, to the mine, but to return to Hungshan where the second of the mines belonging to the Company is situated.

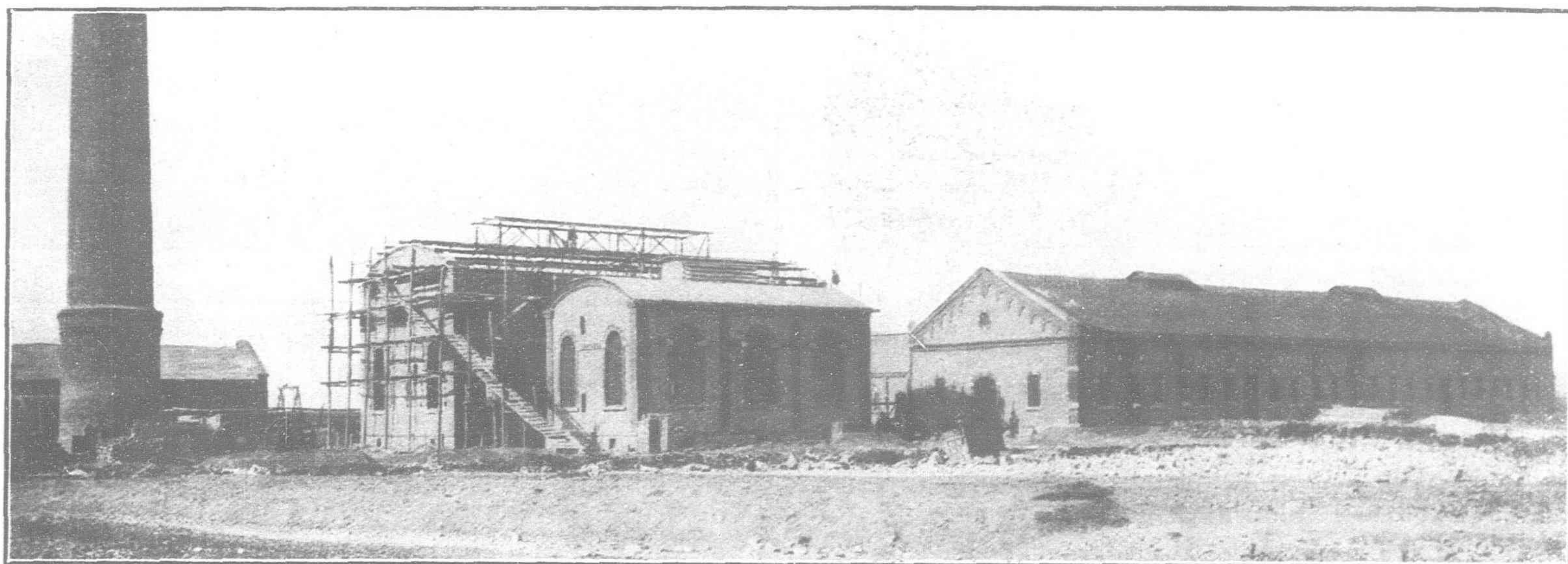
The Works in Fangtze comprise a Double Shaft, a large Repair Shop with foundry, Saw-mill, Coal Separation and Shipping Department, Coal Washer working at rate of 80 tons daily, a Briquette manufactory for 30 tons daily output.

There were on the average about 25 Europeans employed in Fangtze, and 2,000 Chinese. The Europeans lived in a colony together.

In the photographs given, No. 1 shows the Works with Coal Washer and Briquette factory seen from the south, picture No. 2 shows the Mine entrance from the West, pictures 3 and 4 the arrangement of both shafts viewed from the East side.



General View of Fangtse Mines.



Fangtse Mine Buildings.

The progress of the railway having made the further special examination of Poshan possible, this was started in the year 1902 and carried on until 1904 when the first shaft was sunk. It was carried down to a depth of 268 metres when it was found there were 3 strata groups, the first 100 metres underneath the characteristic top layer shows about 16 metres of 4 single strata of $2\frac{1}{2}$ metres altogether of a really first-class rich coal, having about 17% gas, and about 8% ash. The second, group situated about 60 metres from the first, contains 3 strata in 17 metres, having altogether 1.8 metres Coal, likewise of the best quality, but containing on the average 10% ash and only 15% gas, which makes the sale of this Coal just possible. At a further distance of 100 metres a third group of 4 strata is found in a extensive mountain layer of about 20 metres, containing 4.2 metres of an anthracite Coal having 12% gas and the same quantity of ash, but of very considerable heating value.

Several of the layers are not worth exploiting. They are, however, cheap to work as they lie between good species of soil, so that the cost in wood is small. In practice the coal is found to be excellent steam coal, and also has the special advantage of being almost smokeless so that it is particularly suitable as a substitute for the expensive Cardiff coal used on war ships. Very good hard Coke, suitable for oven heating is obtained from the two top strata groups, so that the 40% of slack from these groups can be turned to most profitable uses. As the coal was found to offer such good advantages, a second shaft was soon

made, and was followed by a third shaft with entirely separate mining Works, which rendered possible the separation and expedited the mining of the coal apart from the first and second groups. By the end of the year (1913) the total Works consisted of the following:—

- 2 Principal Shafts for rich and poor Coal, also an emergency shaft built of stone and iron collectively.
- 1 Coal Washer for poor coal
- 1 Coal Washer for rich coal
- 1 Coal Separator with carriage
- 1 large Repair Shop
- 1 Electric Shop

The entire Works produce the following results in figures:—

1906/07	14,646.05 tons
1907/08	40,899.05 "
1908/09	72,467.73 "
1909/10	183,449.84 "
1910/11	237,544.35 "
1911/12	283,208.50 "
1.4.12—31.12.12	299,652.50 "
1913.....	414,000.00 "

The following statistics show the use to which the coal has been put in the last few years:—

	HUNGSHAN:	FANGTZE:
In use at the Pit itself: ..	27,200 tons	49,200 tons
Wash and gleanings.....	44,000 "	20,400 "

Local sale at the shaft: ..	38,000 tons	16,200 tons
Inland sale by rail:	110,300 "	52,100 "
Use on Railway:	19,500 "	14,500 "
Sale in Tsingtau, local sales:	10,000 "	41,600 "
Bunkered and shipped via Tsingtau:	165,000 "	5,000 "
	<hr/> 414,000 tons	<hr/> 199,000 tons

There is an average of about 30 Europeans employed in Hungshan, and about 5,400 Chinese. As the surrounding villages supply plenty of workmen, there is only a home colony for Europeans.

Among the accompanying views of the Hungshan Works, picture No. 1. shows the Works from the eastern side of the pit, picture 2 shows the Works viewed from the south.

In the year 1903 a further investigation was made of the Iron ore at Chinlingchen.

In the mountain range which rises in a northerly direction of about 280 and 300 kilometers from the Shantung railway, are to be found large quantities of iron ore in contact with Diorite and chalk.

At Tiehshan the iron ore is easily traced by the remains of old mining works; there are still blocks of pure magnet iron ore, which the old miners had not the skill to work; the whole is opened up by shafts, galleries and bore holes. The hanging part is of very hard crystalline chalk, and the lower part of quartz augitdiorite. The iron stone continues regularly throughout except for trifling interruptions, and is only adulterated in the lower part with sulphur pyrites.

An average trial of the ore taken from a mass of 3,000 tons out of Gallery I. showed conclusively:--

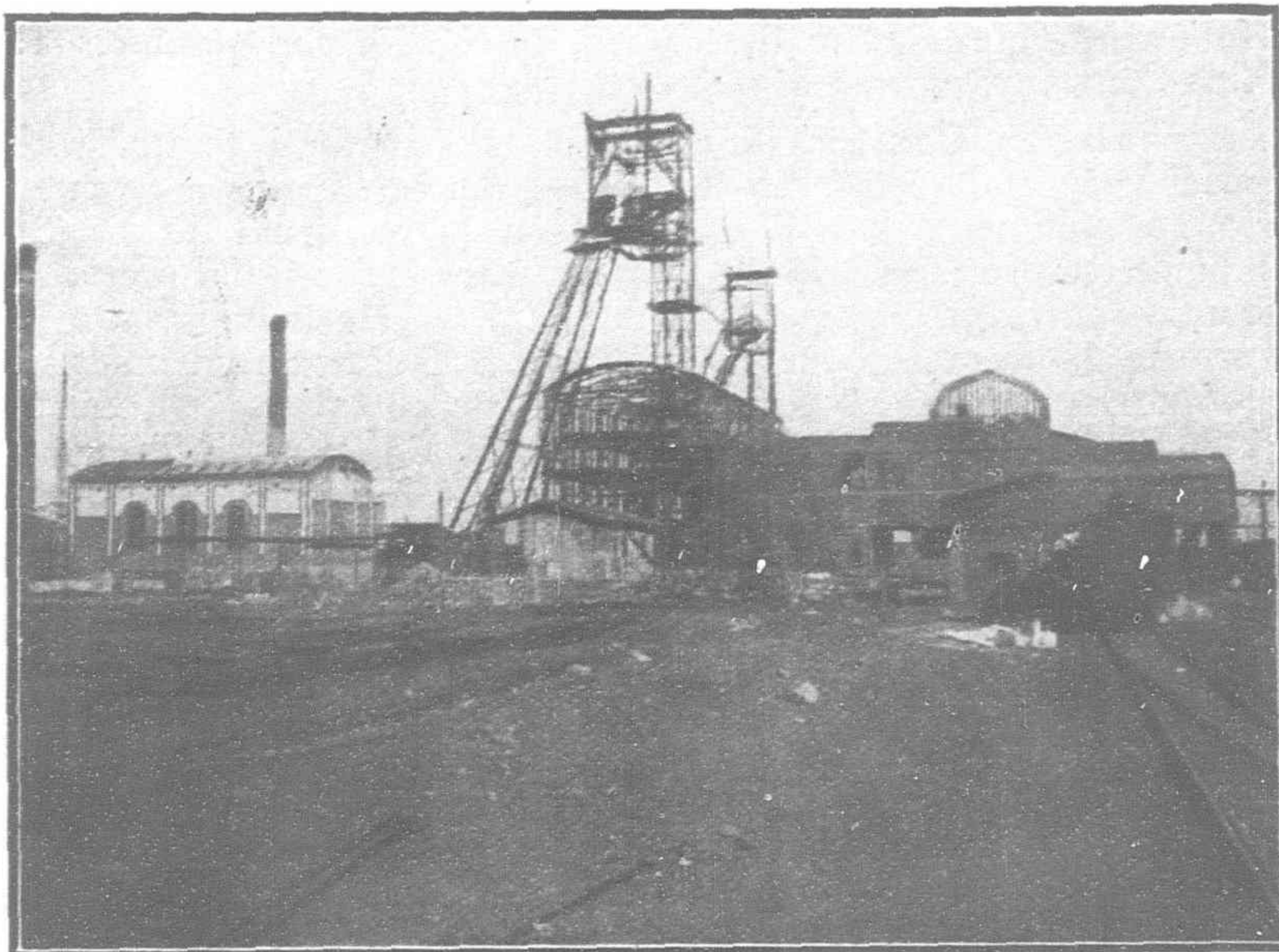
65.42 Fe	Spur As
0.42 Mn	" Sn
0.03 P	2.00 Si ₂ O ₃
0.08 S	0.8 CaO
0.09 Cu	0.5 MgO.

At Sypauschen where the ore is found there are not only clear traces of old mines to be seen, but also remains of an old foundry. This ore in particular contains the highest proportion of iron (66.4%) 2.8 per cent. residue, 0.02% S. and traces of phosphor. The ore is therefore the purest iron ore which can be obtained anywhere.

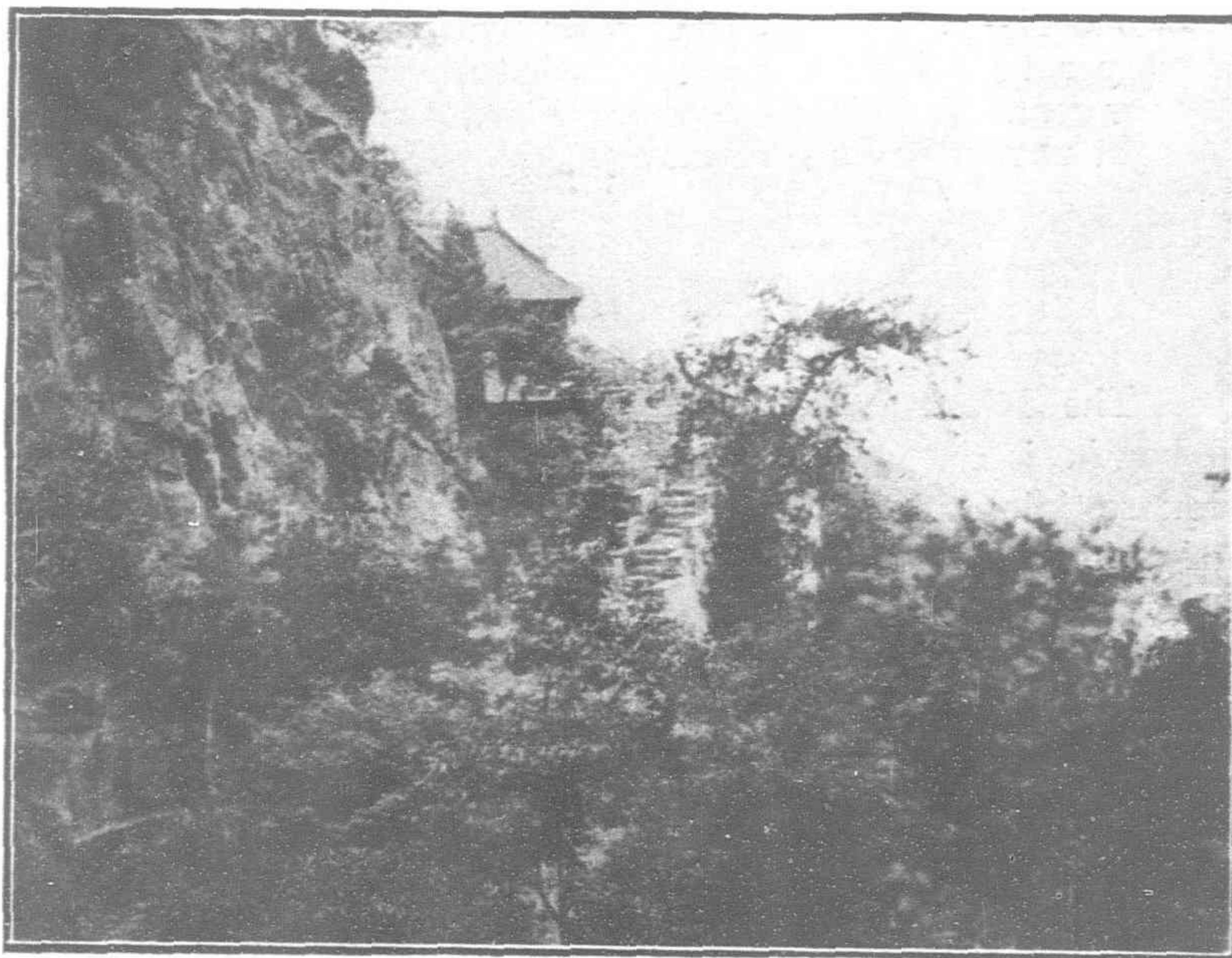
The ascertained supply of ore amounts all together to 49,100,100 tons, more than 20,000,000 tons of which lies in such a position that it can be worked easily and cheaply. This, of course, does not exhaust the supply by any means. The authenticated amount of raw iron still remaining amounts to more than 30,000,000 tons.

Now that the preparatory work has been accomplished in opening up sufficient ore, and it has been proved that good coke can be obtained suitable for heating purposes in the neighbourhood of the Hungshan mine, it has been decided that Iron Works shall be erected at Tsangkou, with a preliminary two Ovens with a daily output each of 130-150 tons. The preparatory work will be expedited to allow of mining being commenced in 1915.

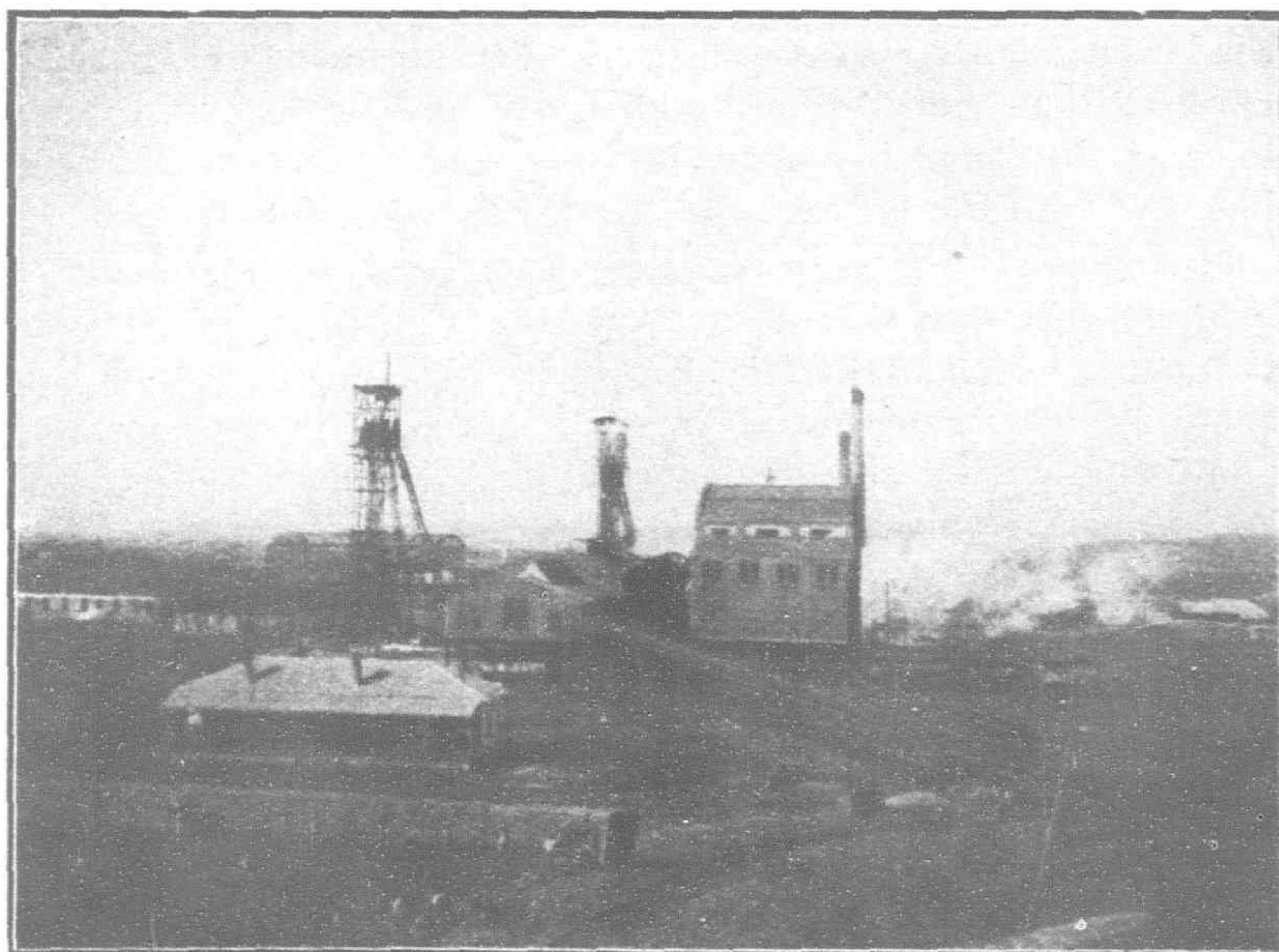
Although it was originally intended to make a further special investigation of the other products on the border of the Tsinanfu-Ytschoufu mountain range, this was deferred, as the Putsun Butschi, Tawenkou, Yhsien, Kuetschou Mining Concessions were returned to the Chinese Government. The Shantung Railway Company had in the meantime been combined with the Shantung Mining Company, and these renounced their claim to extend the railways over Tsinanfu upon the Chinese Government engaging to build the northern part of the Tientsin-Pukow railway line (which was the original concession line of the Shantung Railway Company) with German material and German funds, added thereto under similar conditions also the other line under contract, from Yhsien over Ytschoufu to Kaumi to be carried out as a Chinese Government Railway, whereby the mining rights of the district bordering on the railway line reverted to the Chinese Government.



View of the Hungshan Mine.



Scenery in the Poshan Valley, Shantung.



View of Hungshan Mine.

Prices:—The British Consular Reports for 1910 give the following figures as to the current prices for the products of this Company.

Fangtze Coal:—The coal sent to Tsingtau is treated with machinery and sorted into two sizes; nut coal in pieces from 10 to 40 millimetres, and lump coal in pieces from 40 to 80 millimetres in size. Both sorts are washed at the mines to remove dirt and stones. The nut coal is primarily for use in private houses; the lump coal, mixed with nut coal in equal proportions, is used for industrial purposes and steamers' bunkers. The price of nut coal at the coal yard in Tsingtau is \$8.50 (about 14s. 10d.) per ton; that of lump coal, \$9 (about 15s. 9d) per ton. Mixtures of the two coals for local use, steamers' bunkers or export shipments are sold. Supplies of these coals are kept at from 1,000 to 2,000 tons on Mole 1 in Tsingtau harbour. As the development of the main shaft near Wei-hsien takes place, the supply will be materially increased. Reports as to these coals are not very favourable. It is stated that their steaming qualities are not equal to those of Japanese coal, and that there is so much hard refuse clinging to the grates that the fire-boxes have to be cleaned twice as often as when other coal is used.

Hungshan Coal:—Of this Coal the fine dust is disposed of in the interior, while a mixture of the pieces and lump coal goes to Tsingtau. In the interior the coal is used for black-smith's purposes, while that sent to Tsingtau is sold to the German Navy. The contract price with the German Navy is 27s. per ton, with a guarantee that there will not be over 25 per cent. of fine coal or dust. Cardiff coal (6,000 tons) was bought about the same time at 32s. 6d. For loading small loads

there is a supply on Mole 1, and for large lots, at the Tsingtau Naval Yard in the Great Harbour.

Mr. H. H. Fox, the Acting British Commercial Attache, in his Memorandum on Chinese Mines issued in 1911 gives the following current prices for the products of the Shantung Mines:—

WHOLESALE Prices per Ton.

At—	Weihsien.			Hungshan		
	Dol. c.	s.	d.	Dol. c.	£	s. d.
Tsingtau ..	7 0	12	3	11 50	1	0 0
	to	to		to	to	
	9 0	15	9	15 50	1	7 0
	Taels c.			Taels c.		
Shanghai—						
Lumps ..	6 0*	15	0	8 25	1	0 7
Navy lumps ..	..	..	..	11 0	1	7 6
				6 0	0	15 0
Nuts ..	..	..	..	7 0	0	17 6
				8 0	1	0 0

* Weihsien (Fangtze).

TAWENKOW COAL FIELDS

The Tawenkow region is south of Taianfu about 4 kilometers distant from the Tientsin-Pukow Railway. The mines came under the concession granted to the Germans, who surrendered their rights last year. The coal is mined with Chinese methods and semi-foreign style, and give a daily output of about 200 tons. The quality however is inferior.

THE CHUNG HSING COAL MINES

The Ichow coal field, about 15 kilometers southwest of Ichowfu is the most extensive in the province, covering 6,500 square kilometers. The concession was owned by the Prefect of Ichowfu. During recent years mining has been started in five places, all in primitive Chinese fashion. Some 50 pits are being worked, at a depth of about 35 metres and a width of 1.5 metres. The coal is raised by gins and animals, and is good for cooking purposes; the output is estimated at about 30,000 tons annually.

The Yihsien coal-field is considered by far the best in Shantung as regards stratification of the layers, thickness of the seams, and quality of the coal. Besides coal, there is also iron ore of good quality, but not yet worked. The coal-field is in a mould 30 kilometres long and 8 kilometres deep; the upper seam has a thickness of from 2.5 to 10 metres, and the lower, from 0.8 to 1.12 metres. Beyond the mould the field is reported to extend some 10 kilometres in a westerly direction, to near the Tientsin-Pukow Railway, which has built a branch line to Tsaochwang, and has contracted for 60,000 tons of coal annually. Some 60,000 tons are being coked annually. The Yihsien coal-field belongs to the Chung Hsing Mining Company, which was started in the year 1880. In 1898 the company was transformed into a German-Chinese company, and was granted a concession for mining with machinery a field 100 *li* in circumference, and for a railway from the mine to the Grand Canal. In 1908 the two German shareholders were paid out, and the company, which until then had worked with a capital of Tls. 800,000, became again a purely Chinese limited liability company, with a capital of 2.2 million taels, of which the provincial government holds Tls. 100,000.

These mines seem to have been the only ones operated in Shantung at a profit. The capital of the concern was increased to Tls 3,500,000. The company is operating eight shafts and has just equipped its newest shaft with modern machinery.

When this shaft is in full working order 2,000 tons of coal a day will be taken from it, but at present it yields but 500 tons a day.

The machinery for this mine was supplied entirely by German manufacturers, who advanced a loan of 80,000 marks (about \$19,000) to the company in connection with the installation of the machinery. The plant includes 10 boilers, pumps, elevators, electric machinery, and cars. The company operates 27 miles of railway in connection with the mine, and for the construction and equipment of this railway German capital and materials were used.

Previous to the construction of the Tientsin-Pukow Railway, the company's products were shipped via the Grand Canal, but now practically all of its coal is shipped over this railroad. The company states that shipping over the canal costs 3 cents Mexican a ton-mile, while shipping over the railroad costs but 2 cents. The coal, which sells at the mine for \$2.25 gold a ton, is bituminous and is said to rank with Kaiping coal. The company claims a total of 4,000 tons a day capacity, and besides makes large quantities of coke. It is also preparing to place a superior quality of fire brick of its own manufacture on the market.

The chief engineer and the first assistant of this company are Cantonese who were trained at Tong Shan in Chihli. They have had no foreign assistance in the construction and operation of the company's plant. The chief engineer receives \$120 gold a month and his assistant one-half this sum. All of the labor in the mine is on a contract basis, the native miner making an average daily wage of about 10 cents gold. There are about 800 men employed on the company's premises.

The Tientsin-Pukow railway recently constructed a branch line from Lincheng to Yihsien, where it connects with the railway owned by the mining company, this providing a through rail outlet to the market for their coal.

ENGINEERING, FINANCIAL AND INDUSTRIAL NEWS

MINING

Working Mines in the Philippines.—The following data in regard to working mines in the Philippines is from official sources:—

Gold Mines, Lode.—In the Mancayan District, in Mountain Province, the past year has been marked by an unusually large production of gold which is recovered by the Igorrots from quartz ledges exposed by landslides. The production for 1914 from this source will amount to, perhaps, P. 75,000.00.

In the Baguio District, in Mountain Province the Headwaters Mine has been idle during the year 1914. The Benguet Consolidated has just commenced the erection of a new mill. The Camote-Clayton Mine has been operating throughout the year at the rate of about P. 1,600.00 a month. Development work has been continued on the Probeck-Ebert Property near the Headwaters, and on the Kelley claims. Mr. C. H. Hulbert has been engaged in the erection of a small stamp mill and amalgamation plant on Batwaan Creek, and a three-stamp mill has been in operation in the Lubang District.

In the Paracale District the old Tumbaga Mine has been operating under the supervision of Messrs. LeDuc and Dudley, and the property and workings at the San Mauricio Mine have been put into order in anticipation of a professional examination of this mine by interested capital. The Nalasbetan States Mining Company has not been in operation during the past year. The Paracale Venture Corporation, an enterprise which plans to treat placer deposits by mining methods, has done only a limited amount of work apparently.

In the Aroroy District in Masbate the Colorado Mine has continued the operation which has been consistent throughout several years, and their 1914 production will probably exceed that of 1913, which amounted to P. 772,124.40. The Syndicate Mining Company, which took over the old Eastern property, began operations on the 1st of February, 1914, and has continued since that date in a satisfactory manner. The output of this mine will be only slightly smaller than that of the Colorado. The Keystone Mine, the capacity of whose mill is somewhat less than the capacity of either the Syndicate or Colorado mills, has been in operation throughout the last year. A three-stamp mill has been operated by Charles Schwab on the property known as the Schwab claim and has produced small amounts of bullion during the past year. Prospecting is being actively pursued elsewhere in the Aroroy District, but no further production is reported for 1914.

Several veins are being explored on the property of the Cansuran Mining Company in Surigao Province, but as yet there is no production from lode mining in this Province.

Placer Mining.—The Paracale District has been the most active in 1914, as in previous years. Small quantities of placer gold have been recovered from Mountain Province, from the Cabu River in Nueva Ecija Province, from the Binabay River in Mindoro, and from several districts in Mindanao outside the Cansuran District. In the Paracale District seven dredges have been in operation in 1914. The Gumaus dredge has yielded the largest individual output, some of its monthly runs having exceeded two thousand ounces. The Australian companies, including the Philippine Dredges Ltd., the Philippine Dredging Proprietary Ltd., the Paracale Bucket Dredging Proprietary Ltd., and the Philippine Dredging

Syndicate, operated four dredges during 1914, three of which were on the Paracale River and one on the Malaguit River. The Malaguit Dredging Company purchased a modern dredge from the Yuba Construction Company and began operations in March, 1914, on the Malaguit River. The Maximello dredging Company, with its small dredge on the upper part of the Paracale River, has reported excellent progress during the past year and has made complete amends for the failure of the same dredge under the administration of the old Stanley Dredging Company. The combined production of the dredges in the Paracale District for the year 1913 exceeds P. 640,000.00.

The Australian companies operating in Paracale contemplate the erection of several new dredges in the near future, and the Mambulao Placer Company, under the direction of Joaquin Casanovas, is at the present time purchasing a dredge from America which will be placed on the property of this company at the head of Mambulao Bay as soon as possible.

The Umari Gold Ltd. has completed its dredge on the Umari River in Tayabas Province on the east coast of Luzon and is at present engaged in working through the territory which intervenes between the mouth of the river where the dredge was built to the claims which are to be worked.

The Cansuran Mining Company in Surigao Province, Mindanao, has installed a complete hydraulic plant and at this date (November, 1914) has just begun hydraulic operation. Work on this property would have started earlier but for the exceptional drought which Surigao Province has experienced during the past year.

In iron mining the several small Filipino companies in Bulacan Province have continued operations during the year 1914, and their combined output will probably exceed that for the year 1913 which amounted to P. 64,000.00. These companies smelt rich iron ores in a crude way and manufacture cast iron plow points and shares from their product. An attempt is being made to exploit the iron ore deposits at Mambulao Bay, Camarines Province, in a similar manner, but the enterprise has not as yet progressed very far.

The most interesting feature of Philippine iron mining during the current year has been the reported discovery of an immense deposit of high grade limonite ore in Surigao Province, Mindanao. The deposit has not been examined officially yet and the alleged great quantity of ore available, therefore, has not been confirmed.

In copper mining the best known district, namely the Mancayan-Suyoc District in the Mountain Province, has not been active. The men who control this property have simply kept up development work. Considerable interest has arisen concerning some recently discovered deposits of metallic copper and copper oxides in Zambales Province, and numerous claims have been located on these deposits.

There has been desultory operation on gold and silver-bearing lead ore on the Island of Marinduque, Tayabas Province, and some shipments of this ore have been reported.

There has been no operation in coal mining during the past year, and interest in petroleum resources has likewise been quiescent.

Some exploration has been carried out on the asphalt or gilsonite deposits in Leyte, and a number of claims have been located in this region.

Gold Production in British India.—It is stated that the production of the gold mines of India during the first six months of 1913 amounted to 293,577 ounces, as compared with 289,991 ounces during the corresponding period of 1913.

ELECTRICAL

Singapore Tramways.—The annual report of the Singapore Electric Tramways & Power Co. for 1913, presents "for the first time a balance on the right side," the year's profits having been \$45,672. The tramway has 15 miles of track, and carried over 16,000,000 passengers last year, an increase of nearly 2,200,000. Receipts per car-mile were 19 cents in 1913, against 17 cents in 1912. No dividend was paid, the concern having purchased at various discounts \$260,843 of its own debentures, of which \$163,513 have been canceled and \$97,330 kept alive and carried as a credit. The capital now stands at £100,000 (\$486,650). The chairman states that the company anticipates starting annual dividends from next year. He added: "A strong reason for deferring the question of dividend is that the board has for long had under consideration a recommendation of their manager to construct a parallel line of tramway in the most densely inhabited part of Singapore town, and if that were carried out it would cost a large sum."

Electric Machinery in Japan.—Hitherto most of the dynamos and other electric machinery in Japan have been supplied by the General Electric, the Westinghouse, and the Siemens-Schuckert companies, American, English and German respectively, says a Japanese contemporary. The Tone Electric Co., however, is said to be making a notable departure, having ordered the construction of three dynamos of 6,000 kilowatts each, in Japan. These machines are to be made by the Hitachi Works, and the iron pipes, for the same power installation are to be supplied by the Shibaura Works. It is believed that these orders are the precursors of a large industry in Japan. It is certainly a good time to make the attempt, when the European trade is so badly interrupted, and there is a large supply of cheap copper in Japan.

Shanghai Tramways.—The following is the traffic return of the Shanghai Tramways (Foreign Settlement) for the week ended October 21, 1914, with figures for the corresponding week last year:—

	1914.	1913.
Gross receipts	\$ 24,924.88	\$ 25,147.00
Loss by currency depreciation	6,533.22	5,563.64
Effective Receipts	18,391.66	19,583.36
Percentage of loss by currency depreciation	27.98	23.26
Passengers carried	1,113,994	1,048,047
Car miles run	59,541	58,437

Week ended October 28.

	1914.	1913.
Gross receipts	\$ 22,884.79	\$ 24,306.54
Loss by currency depreciation	6,138.92	5,338.99
Effective receipts	16,745.87	18,967.55
Percentage of loss by currency depreciation	29.80	23.12
Passengers carried	1,025,284	1,009,920
Car miles run	58,645	57,843

Week ended November 4.

	1914.	1913.
	\$	\$
Gross receipts	25,345.52	23,882.23
Loss by currency depreciation	6,864.84	5,248.22
Effective receipts	18,269.68	18,634.01
Percentage of loss by currency depreciation	29.07	23.13
Passengers carried	1,123,429	988,211
Car miles run	60,159	57,055

Week ended November 11.

	1914.	1913.
	\$	\$
Gross receipts	24,993.00	24,350.61
Loss by currency depreciation	6,742.47	5,181.66
Effective receipts	18,250.53	19,168.95
Percentage of loss by currency depreciation	28.71	22.41
Passengers carried	1,110,162	1,003,493
Car miles run	61,071	58,903

HARBOR, IRRIGATION AND CONSERVANCY WORKS

Conservancy of the Liao River.—It is likely that little will be done at present in carrying out the Liao River conservancy scheme owing to the outbreak of war Europe. The local consuls of foreign countries have been informed that the Foreign, Japanese, and Chinese Chambers of Commerce have elected their representatives, who, in accordance with the agreement, automatically become members of the Conservancy Board. The completion of the executive committee rests with the consular body.

Siberian Proposed Harbor Works.—As foreshadowed some time ago, certain construction work has now been decided upon in the Russian Far East. In an interview with Engineer G. L. Faierman he stated that a port will be constructed at Alexandrovsk, Saghalin, at Government expense. Its cost will be \$3,000,000, and it provides for a possible annual output from local coal mines of 806,000 tons.

In June, 1914, the port of Nicolaevsk will be turned over to the Ministry of Commerce and Manufactures. Engineer G. L. Faierman has been appointed chief constructor of this port. A dredging fleet costing \$515,000 has been ordered for Nicolaevsk, and dredging will begin not later than the beginning of navigation in 1916, perhaps before. During the 1914 navigation period the way from Nicolaevsk to Palevo stream will be properly marked to enable ships going to Mago to take several million poods (pood=36.1128 pounds) of beans which are being shipped to that point via the Amur River, instead of as heretofore by rail to Vladivostok.

During the 1914 navigation period Tetiuhe Bay will be investigated by Engineer F. S. Saloff with a view to its improvement at an early date.

F. M. S. Port Swettenham Improvement.—The F. M. S. Railway program for the present year includes fixing the position of a duplicate line between Kuala Lumpur and Port Swettenham. This port, the most important in the Federated Malay States, is becoming more popular as a port of call for ocean-going steamers running between Europe and the Far East. The fleet of 65 lighters will be augmented during the year by 10 new steel lighters, and other arrangements have been made by the railway department to facilitate the discharge and loading of cargo. The new quarantine station, now nearing completion, is of a design that has created a good deal of interest among experts in quarantine matters.

Harbor Improvements at Keelung.—One of the most important public works now being carried on by the Taiwan Government is the

improving of the harbor at Keelung. This port is the most important in the island, as the greater part of the trade with Japan goes through it, and the subsidized liners connecting with Kobe and Moji and averaging two steamers per week all run to Keelung. The prevalence of typhoons and the destruction they cause during certain seasons of the year make good harbors imperative. The present total dredged anchorage area of the Keelung harbor is 518 acres, more than half of which—or 286 acres—has a depth of 30 to 90 feet. In the inner harbor four steamers of 6,000 tons each can be accommodated alongside the quay; six steamers ranging from 2,000 to 10,000 tons can be berthed at the buoys. The outer harbor provides an anchorage for two steamers of 20,000 tons. During the year 1913 not much work was done at Keelung. A length of 480 feet of sea wall, varying in depth from 4 to 12 feet, was built; steel warehouses covering 28,800 square feet were erected, and reinforced-concrete warehouses covering 30,240 square feet were also constructed. The chief work planned at Keelung for 1914 is the construction of steel warehouses with an area of 52,200 square feet, the building of some 14,000 feet of sea wall, the placing of 21 mooring buoys, and the addition of six 1½-ton cranes and two 10-ton cranes to the equipment. About 780 feet of breakwater will also be built.

Work on Takao, Anping, and Tansui Harbors.—The harbor at Takao, which is not naturally so well protected as that at Keelung, has received a great deal of attention. Over 7,000 feet of sea and quay wall, varying in depth from 9 to 30 feet, was built; eight mooring and two harbor buoys were placed, and eight electric cranes were provided, of which number two are 15-ton and the other six are 2-ton. Steel-frame warehouses covering 43,200 square feet were erected and 68 acres of land reclaimed. There are inner and outer harbors. In the inner there are 35 acres with a depth of 12 to 18 feet below low water and 130 acres with a depth of 18 to 30 feet at low water. In the outer harbor there are 2 acres with a depth of 12 to 18 feet and 47 acres 18 to 30 feet deep at low water. In 1914 it is intended to put in 38 more electric cranes (2-ton), which will complete this equipment. Over 280,000 square feet of steel-frame warehouses will be erected, 14 acres of land reclaimed, 2,280 feet of breakwater constructed, and 760 feet of wall for the prevention of the deposit of littoral sand made. When the work is finally completed, there will be 294 acres of water area in the inner harbor with a depth of 30 feet, and 72 acres in the outer harbor with the same depth. The entrance to the harbor has been widened to 350 feet and rocks and sunken reefs removed. The entrance will be widened by another 150 feet, making it 500 feet in width when completed. The anchorage at Takao provides room for nine steamers of 3,000 tons each in the inner harbor. At this anchorage cargo can be worked by lighters with safety.

At Anping a channel 3 feet deep and 60 feet wide was opened in 1913 to a length of 3,780 feet. This channel provides a passage for small boats to the steamer anchorage.

At Tansui an area of 5 acres was dredged in the ship channel, which maintains a width of 360 to 600 feet and is about 18,000 feet in length. The depth at the entrance to this harbor is 10 feet below lowest water in the most shallow part, while the depth in the inner harbor varies from 8 to 25 feet at low water, the mean difference between high and low water being about 8 feet. The inner harbor provides anchorage for 10 steamers of 1,000 tons, or for 5 steamers ranging from 2,000 to 3,000 tons. Considerable trouble is caused at Tansui by the silting of the river after every typhoon and its consequent flood.

BUILDINGS

The tender of the Shanghai Dock and Engineering Co., Ltd., for Tls. 50,000 has been

accepted for the construction and erection of steel trusses for the Shanghai Volunteer Drill Hall. Following were the tenders received:—

Andersen, Meyer & Co.	£7,500
Nicolas Tsu Engineering Works	7,316
Scott, Harding & Co.	6,779
New Engineering & Shipbuilding Works, Ltd.	6,500
John D. Hutchison & Co.	£5,130 plus Tls. 4,314
Shanghai Dock & Engineering Co., Ltd.	Tls. 50,000
William Jacks & Co.	£4,800

Philippines, New School Buildings.—A new primary school of 20 rooms is to be constructed of reinforced concrete at Cebu by the Bureau of Education at a cost of \$27,500; another to cost \$7,500 is to be built at Palo, island of Leyte, one-third the cost of which will be borne by the municipality and the remainder by the Bureau of Education. At San Fernando La Union another fine 16-room school building for primary grades is to be built, for which the Bureau of Education has set aside \$12,500.

The Germinal Cigar & Cigarette Factory, Manila. will soon construct a new factory building alongside the present building. The new building will be of reinforced concrete and six stories high, and will cost \$125,000. A new concrete and steel warehouse for the factory has just been completed, costing \$25,000. When the new factory building shall have been completed it will be the best factory building in the Far East.

New Treasury Building, Peking.—The Ministry of Finance will have a new building at Peking for its offices. The construction of the building is to be undertaken by a German engineer and architect, who guarantees to complete the work at a cost of \$100,000.

Manila New Building Ordinance.—The Municipal Board of Manila has passed an ordinance providing that all buildings constructed in the city hereafter must be rat proof. This measure is for safeguarding the public health against bubonic plague. The ordinance was drafted by the director of health and the city engineer. Hollow walls and partitions are forbidden. Walls, with the exception of those of solid wood, must be of concrete, brick, stone, mortar, or other material that will keep out rats, to a height of one meter (3.28 feet) from the ground and must extend below the surface of the ground at least twice the thickness of the wall. All hollow construction is forbidden except it be without apertures through which rats may pass and of materials through which they can not make their way. A penalty is provided for violation of the provisions of the ordinance of a fine not exceeding \$100 or imprisonment for not more than six months or both.

F. M. S., New School Buildings.—Plans are in preparation for new schools to take the place of the present St. Michael's Schools at Ipoh, Federated Malay States. New buildings will be erected on Anderson Road, near the new hospital, to accommodate 500 pupils. It is expected that they will be completed within the year.

Mr. Oliver Marks, Acting British Resident, laid the foundation stone of St. George's Institution, the new school which is being erected for the Christian Brothers in Taiping, Federated Malay States, on July 20.

Manila, Cinematograph Theater.—A new modern cinematograph building will shortly be erected in Manila, on the site of the old Majestic Theater, which burned some years ago.

Singapore, New Buildings.—In the way of buildings there has been recently completed in Singapore the new French Bank building, a modern three-story structure, and the new Palladium Theater (moving-picture). The two new buildings of the Chartered Bank of India, Australia, and China, and the new store of Messrs. Whiteaway Laidlaw have been started and are progressing. The new building for the Government printing department in Singapore is completed. This is a structure of brick covering a half square block and is two stories high. The erection of a large garage and showroom in Orchard Road, the principal thoroughfare of the city, was begun by the Central Engine Works. This is to be a modern garage and showroom for automobiles, machinery, engines, etc. It is to be the first modern building of its kind, as heretofore no firm has made a special feature of exclusive garage and showroom for exhibits and demonstrations on a large scale. There was also installed in the Hotel Raffles, the principal hotel of the city, a new 35-horsepower electric lighting plant.

Bangkok, The Chulalongkorn Hospital.—The *Bangkok Times* gives the following information relating to this hospital, otherwise known as the Red Cross Hospital: From notifications in the Government Gazette it appears that the money contributed by the Royal Family to the Red Cross Society for the Chulalongkorn Memorial Hospital amounted to \$45,477. When the Red Cross Society ceased its activities, it had in hand a balance of \$144,766, and the interest has accumulated to \$34,078. In addition to the special contribution from the Royal Family, the Red Cross Society has also been spending its own funds in building and equipping the Chulalongkorn hospital. It is hoped to make this hospital the finest in the Far East and the buildings now finished are only part of what is set forth in the plans. For example, there are only two wards now for patients, but the plan provides for six. Much importance is also attached to the research work and the medical teaching which it is proposed to organize. Plainly, therefore, more funds will be wanted for the completion of the scheme and the maintenance of this extensive organization. The Government is not expected to contribute in any way, but for an institution of this importance there will no doubt be ready and steady response to the public appeal.

Dalny, Permanent Warehouses.—The South Manchuria Railway Co. has received the sanction of the War Office, Tokyo, for constructing permanent warehouse on Dalny wharves, and has decided to build one on the vacant lot on section B and C on Main (west) Quay. The two-story building will be steel trussed and will cost about \$200,000, the work to be completed in July, 1915. The contract has been given to a local Japanese contractor, Mr. S. Kato.

INDUSTRIAL

Siam, New Cement Factory.—About one year ago a company was formed to manufacture cement in Siam. Registration of the company was to be effected under Siamese law, several of the promoters being Siamese. The capital was to be \$444,000, of which \$74,000 was to be given to the promoters in free shares.

The preliminary arrangements have been completed, and it has been decided to locate the plant at Bang Sue, about 5 miles from Bangkok, where transportation facilities will be available for bringing the cement to the capital both by rail and by water. Danish engineers have arrived and will proceed at once with the construction of the factory, the machinery for which has been ordered from Denmark. It is expected that the plant will be in running order in about eight months' time. This will be the

first attempt at making cement in Siam, as hitherto it has been imported from abroad.

The total amount of cement imported during the fiscal year 1913 was 21,968 tons, value \$218,519, the main sources of supply being Indo-China, with 11,014 tons; Denmark, 9,026; and Hongkong, 1,535.

Swatow Bean Mills 1913.—The two bean cake factories of Swatow did not have a successful year, owing to the fact that Hankow bean cake can be laid down here cheaper than the local mills can market their output made from Hankow beans. These mills were in operation for only five months during the year and turned out 160,000 pieces of cake, of about 62 pounds each.

Motor-Car Service in South Manchuria.—A group of Japanese residents at Pulantien are planning a \$10,000 company to start a motor-car service between Pulantien and Pitsuwo. The departures from each end will be twice daily, the accommodating capacity of the motor car being 16. A journey between the two places can be completed in two hours.

New Button Factories in Philippines.—There has recently been a great advance in the Philippines in the demand for shells suitable for the manufactures of buttons. Since the establishment of a second button factory in Manila the price of these shells, the *Trochus niloticus* L., has advanced from \$4 to \$10 per picul (139.44 pounds). The rise in price has stimulated the industry of gathering shells and there is now danger of ruining the industry by gathering young and immature shells. A law is being advocated making it an offense to gather top shells less than 3.5 inches across the base. The increased demand for shells has stimulated a trade in the black-lip pearl shell (*Margaritifera margaritifera* L.). The sudden demand for this shallow-water shell has been so large as to threaten its early exhaustion unless a law protecting it is enacted. Large quantities of this shell too thin for use are constantly being thrown out by the factories.

The factories are now using the "scope" or "ear" pearl shell for buttons. This is the first time that this shell (*Avicula micropterus* L.) has been used in the islands for button making.

Timber Industry in Russian Far East.—A timber company of Melbourne, Australia, and Siberia has decided to move part of its plant from Geelong, State of Victoria, Australia, to Imperial Harbor, on the Sea of Japan Maritime Province. This decision of the company means that sawn material instead of round logs will be shipped to the Australian market. The sawmill will be the largest in the Russian Far East and will bring about considerable development in the soft-wood industry of that region.

The Russian Volunteer Fleet is making great efforts to facilitate the shipment of timber from Eastern Siberia to China, India, Australia, New Zealand, South Africa, and European ports by the establishment of a Vladivostok-Baltic Sea line. This company is understood to be carrying out the desire of the Ministry and the fixing of minimum freight rates for timber is encouraged by the Government.

Japanese Printworks.—It is reported that certain English capitalists, who are interested in the cotton yarn and piece goods business, have on foot a scheme to promote a company in Japan, to be called the Oriental Cotton Printing Co., and to have a capital of 3,000,000 yen (\$1,500,000). A letter received by a Manchester house in reference to this says it is rumored that it is a Japanese ex-minister of finance who is endeavoring to interest English capitalists in the project. The idea is that the company would take over the Japan Cloth Manufacturing & Printing Co., which has Lancashire-made machinery, but is said to be

unable to find work for the machinery, all the year round. The present price of the company's 50-yen (\$25) shares is about 18 yen (\$9), and it is suggested that the shareholders would probably be very glad to sell out. The correspondent adds: "There are several smaller printing works, and competition is very keen."

Bamboo Pulp Paper Mills.—The two principal foreign style concerns engaged in the manufacture of pulp for paper from bamboos in the Far East are in the course of reorganization. It is announced that the mill at Kagi, Formosa, owned by the Mitsu Bishi Co., has not only found it difficult to make the business pay in general, but also has suffered from loss by damage from floods and storms until its present deficit is something like 400,000 yen, or \$200,000 gold. The mill has been practically closed down since the beginning of the current year, some experimenting being carried on by a few employees while the mill force as a whole has been transferred to the company's Takasago paper mill. The mill of the Societe des Pulpes, the Hongkong concern, in Tonkin, is now said to be on a paying basis if the affairs of the company can be put into normal condition, but it has taken a considerable loss to bring this state of things about for it appears that the entire capital of \$600,000 local currency (about \$282,000 gold) has been absorbed and there is a deficit of about \$220,000 local currency or about \$103,400 gold. The mill at present is turning out 15 to 16 tons of pulp marketable at from 290 to 300 francs (\$55.97 to \$57.90 gold) per ton at current prices. Money for reorganization is being raised in Hongkong.

Cost of Milling of Soya Beans.—According to local authorities the cost of crushing soya beans in one of the Dalny mills is as follows (reduced to dollars per ton of 2,000 pounds):

Items	1910	1911	1912
Office expenses.. ..	\$0.481	\$0.317	\$0.240
Operating expenses ..	.234	.287	.145
Coal .. .. .	.265	.598	.409
Pressing .. .. .	.613	.287	.550
Storage .. .. .	.189	.129	.076
Interest on capital ..	.175	.149	.122
Total	1.957	1.767	1.542
	Tons.	Tons.	Tons
Tons of beans crushed.. ..	25,218	39,394	43,754
	Pounds.	Pounds.	Pounds.
Cake made per ton ..	1,802	1,810	1,817
Oil made per ton ..	198	190	183

A new mill was recently constructed in Dalny by the South Manchuria Railway Co. to demonstrate the modern extraction methods which are in vogue in Europe. An article on the subject appeared in the *Far Eastern Review* for September.

PETROLEUM

Crude Petroleum for the Japanese Navy.—The Chugai Shogyo Shimpō, of Tokyo, contains an article, the substance of which is as follows:

The Nippon and Hoden oil companies have been carrying on negotiations with the Navy Department for the sale of crude petroleum. As a result the Hoden Oil Co. has contracted to supply the navy department with 6,500 tons of petroleum for one year, and the Nippon Oil Co. with 4,000 tons. Up to the present the foreign oil companies, the Standard Oil Co. and the Rising Sun Petroleum Co., have been supplying 285,924 gallons annually to the navy department, but from now on, as a result of these contracts, connections with these foreign oil companies will be entirely severed.

The press of Japan has been publishing glowing reports of the sudden alleged enormous output of petroleum in Akita Ken. A clipping from the Japan Mail gives particulars in this connection.

As a result of the extraordinary gush of oil in Akita prefecture Japanese shipping circles will derive beneficial effects after the Panama Canal is opened. The authorities are under this belief and state that Japan imported oil in 1913 to the value of \$6,000,000 gold. If the well in the prefecture yields oil at its present rate its value will be \$600,000 in one month. If the oil company will equip suitable receptacles it will not only stop further import of oil, but will amply supply it to foreign markets. In consequence a majority of oil-burning vessels coming to the Pacific through the canal will stop in Japan to take liquid fuel. The number of foreign ships coming to Japan in this way will greatly increase, which will directly or indirectly benefit this country.

Mr. K. Ito, superintendent of the investigation department of the Nippon Oil Co., states: "Work begun on the new well in April. On May 25 the rotary drill at 1,368 feet struck an extraordinary deposit. It is also extraordinary that the company's other five wells in the district, which had required suction pumps, have also begun flowing of their own accord. Many reservoirs have been constructed, into which the flow was directed. The new well was sunk with an 8-inch casing, which has been capped with a 4-way head, thereby controlling the flow. The output has thus been reduced from 480,000 gallons to 120,000 gallons per 24 hours, and when the additional reservoir is filled will again be reduced. In the meantime the other five wells have been checked entirely."

The *Japan Gazette*, however, expresses some doubt as to the exact truth of these reports, and counsels caution in receiving them, pending official and expert confirmation.

WIRELESS, CABLES, TELEGRAPHS

Wireless for Hongkong.—The plans for the new commercial wireless station at Cape D'Aguilar island of Hongkong, are well under way, and it is expected that the buildings will be ready for installation of the wireless equipment by the end of the year. The Hongkong Government has appropriated about \$50,000 gold therefore. The station will be on a plateau less than a quarter of a mile behind the Cape D'Aguilar Light, and it is, proposed to have an engine room, accumulator room, transmitting room, and quarters for three operators. The plant is to be of 5 kilowatts, power sufficient for a radius of 500 miles under almost any weather conditions. The station will be connected with Hongkong by telephone and messages received and dispatched will be handled by the post office. No information is yet available regarding the long-range installation which is ultimately to be established somewhere in the colony by the British Government.

Improvements in Far East Cable Service. The cable improvements which have been under construction, have practically been completed by the Eastern Extension Australasia & China Telegraph Co. (Ltd.). This promises to give this section of the world a very much improved service.

Almost simultaneously with the completion of these lines it was announced by this company that week-end telegrams would be received from the 1st of May for the United Kingdom at 17 cents (United States currency) per word and to Germany at 19 cents per word subject to a minimum charge for 20 words in both cases. These week-end telegrams can only be sent from the offices at Penang, Malacca, Singapore, and Labuan, of the Eastern Extension Australasia & China Telegraph Co. (Ltd.). It is anticipated, however, that a service from

the Government offices of the Straits Settlements and the Federated Malay States will be commenced shortly.

These week-end telegrams will be accepted any day in the week to be sent off on Saturday night for delivery on the following Tuesday morning. The messages must be written in plain language and will be subject generally to the same rules as deferred telegrams.

While this special service is not available to many parts of the world it will be an excellent thing for the countries reached by messages at this reduced rate.

TRADE NOTES

Growth of Japanese Nail Industry.—Iron nail manufacture in Japan has progressed so much in the last few years that the importation of the goods is being effectively checked, according to the latest report of the trade. The industry, in Japan, has progressed so far that the whole home consumption can be supplied from the outturn of the Japanese factories. Prices in the producing countries have been so high that the article can not be imported at a good profit. The market has been influenced to a considerable degree by the general depression in the iron-material market.

Japan has been drawing its supplies of nails from abroad, chiefly from Belgium and America. American prices are on the upgrade, so Japan can not long continue to draw from this market without considerable inconvenience. German nails have decreased in price and can now be imported at a profit.

In Japan, on the other hand, the industry, has been steadily developing. At first the Yasuda Iron Nail Factory, at Fukugawa, was the only manufacture of these goods. In 1910 in Amagasaki, Osaka, another factory was started by Mr. Kishimoto, an Osaka business man. Since then the output has increased steadily and rapidly. In the first years of the industry iron ore from Chosen was imported, with a view to exporting the manufactured output to Chosen again. The result was disappointing. The apparent failure of the Yasuda manufactory called forth the Government, which, as a way of protecting the industry, ordered the Government iron foundry at Wakamatsu to supply good ore to this factory. This proved the turning point of the industry in Japan. Since that time the output has steadily increased in quality and quantity. The factory, with a branch at Wakamatsu, now produces more than 10,000 boxes a month. The Kishimoto factory at Amagasaki, Osaka, with a plant big enough to turn out more than 8,000 boxes a month, is now producing 4,000 to 5,000 boxes a month. In the event of these two factories working to their full capacity their output will more than supply the home demand.

Japanese nails were at first regarded as inferior to imported goods, being weak and easily bent. Now these drawbacks have been improved, and in point of quality the home and imported goods are on the same plane. Furthermore, Japanese goods are, on the whole, cheaper than the imported. Therefore, unless foreign goods are made exceedingly cheap and good they will be surely driven from the Japanese market, and probably from the Asiatic market as well.

New Cotton Mill in Bombay.—Two new cotton mills in Bombay, the erection of which began in 1912, are now completed. One of the new mills, the Simplex, which will be under the management of D. M. Wadia & Sons, has been fitted up with electrical machinery which embodies all the latest improvements. It starts with 20,000 spindles and 800 looms. The other mill, just ready, which will also be worked electrically, is the Pearl mill, the agents of which are Sir Curinbhoj Ebrahim & Sons. At present the mill has 20,000 spindles and 180 looms, which will be increased later on.

The Tata Mills Co. (Ltd.), of Bombay, has issued a statement that some new mill buildings which it is erecting will be completed in the latter part of 1915, and will have 100,000 spindles and 3,000 looms, being the largest cotton factory in the city. It is stated that the directors have not been in a hurry to place orders for machinery, as they hope to take advantage of the decline which has lately taken place in the machinery market.

Motor Cycles Popular in Philippines.—The Philippine Islands are offering a growing market for motor cycles. Figures are not available for an accurate report of the number and value of machines of this sort imported during the last few years. Up to the present motor cycles and bicycles have been classed together in the customs statistics of the islands; but it is evident that the trade in motor cycles is on the increase. Dealers report 1912 as the banner year for the trade so far. Heretofore the buyers of motor cycles in the Philippines have been nearly altogether Americans and Europeans. Three years ago scarcely a Filipino motorcyclist could be found in the islands; to-day there are hundreds of them. Owing to the large number of Americans leaving the Government and other services in the islands within the last eight months the trade in motor cycles among Americans has been at a standstill; but the Filipinos are buying more and more largely. The type of machine preferred by the Filipino buyers is generally the lighter makes. Most of the motor cycles sold to Filipinos go to the Provinces. They are used generally by the hacenderos. One dealer reports that his shipments are usually sold out in advance. This man handles a heavy machine that is preferred by the soldiers and officers of the various Army posts of the islands.

American Shoes in China.—Recent investigations, as made in China by the representatives of American shoemaking machinery, as well as American shoe manufacturers, have resulted in the decision to establish retail stores at Shanghai, Hankow, and Tientsin, for the purpose of handling American-made shoes exclusively.

Salt Supply of the Philippines.—The manufacture of salt from sea water in the Philippine Islands is accomplished by the very crudest methods. The greater part of the salt made is produced by sun evaporation; a small proportion is made by artificial heat. The Chinese have introduced slightly improved methods. About 40,000,000 pounds of crude salt are produced annually. In the Mountain Province a small amount of poor-grade salt is produced by evaporating the water from carbonated springs, but the supply falls far short of the demand and the quality is of the poorest. About 20,000,000 pounds of salt are annually imported. Most of this comes from China. This is chiefly crude. About 1,000,000 pounds come from the United States each year. This consists of the better grades of table salt. The United Kingdom sells the islands about 350,000 pounds yearly; Japan about 300,000 pounds; while Australasia and the other countries supply the rest—about 60,000 pounds.

Increasing Interest in Automobiling at Shanghai.—The interest in automobiling, among both the native and foreign populations, is steadily increasing in Shanghai and other parts of China. The increase in the importation of American cars continues. As far as can be ascertained, the total net importation of automobiles for China during 1913 amounted to \$359,862, being an increase of \$180,676 over the previous year.

The Automobile Club of China, with headquarters at Shanghai, is increasing its membership, and has elected the following officers for the coming year: President, Dr. N. Macleod; Vice-president, E. S. Little; finance committee,

M. Permezel, E. F. Mackey, and A. W. Burkill.

A committee of 20 has been appointed by the Automobile Club of China to endeavor to arrange for special trade discounts in purchasing automobiles and supplies. The committee will also endeavor to secure an increased number of native chauffeurs and provide suitable regulations for their employment. Another subject for serious consideration will be the extension of suitable roads throughout the Shanghai district and, later on, extending into the far interior of China.

The members of the committee named at a meeting of the Automobile Club of China, held at Shanghai on June 2, 1914, are as follows: Dr. N. Macleod, Sir Havilland de Sausmarez, Commissioner F. S. Unwin, and Messrs. E. F. Mackey, G. R. Laurenz, A. W. Burkill, G. E. Tucker, A. Berg, W. Pucher, F. O. Reynolds, J. C. E. Douglas, C. E. Anton, T. F. Cobbs, E. S. Little, N. Y. Chun, M. Permezel, L. Bourgeat, B. Peebles, W. C. Sprague and Capt. Hilton Johnson. The members of the above committee may be addressed at Shanghai.

Chinese chauffeurs, when properly trained, are considered among the best in the world. They are conceded to be practically without nerves and, for that reason, some of them may be put forward to enter international racing competitions. The salary of a good chauffeur at Shanghai ranges from about \$15 to \$20 per month.

Japan Imports of Metals and Machinery.

—Last year 1913 was one of the worst years in the metal-importing trade, owing largely to a falling off of Government orders. Although iron ore and iron in pig, ingots, etc., showed an increase, there was a considerable decrease in the imports of iron bars, rods, and the like. The chief source of supply of iron ore is China, while pig iron comes from Great Britain, Germany, China, British India, and Sweden. Great Britain is the chief source of supply for galvanized-iron plates and sheets and other plates and sheets, and Germany for iron wire. The United States ranks first in iron pipes and tubes, which showed a large increase over the previous year. The share of the United States in the import of other metals, such as lead, zinc, and nickel, is very small, but it ranks first as a source of aluminum.

In spite of the great industrial progress of Japan, the country is not in a position to compete successfully with European and American manufactures of metals and machinery, and will not be for many years.

Labor-Saving Machinery in India.—The Collector of Surat, Bombay Presidency, India, has issued a report drawing attention to the poor farming now being forced upon his district by labor difficulties, and suggesting that the only hope of improvement must rest in the general substitution of mechanical appliances for labor in the fields.

Mr. A. A. M. Green, I.C.S., assistant collector at Surat, has been at some pains to ascertain how far the state of affairs in his district has accelerated the tendency to employ machinery. He mentions the extended use of hay presses and the working of flour mills, and says the "rhonts," or water wheels, with metal buckets attached to an endless chain, have been purchased in increasing numbers, and the demand for them is so great that their manufacture has been begun in Bulsar. He says:

There are as many as 10 oil engines driving irrigation pumps. One of these has been working for three or four years at Pipalgabhan with great success. There are seven sharers in the concern, who provide the working expenses in proportion to the area of their irrigated land. Such co-operation is a most welcome sign, as it does away with uneconomic short-time working, which must always detract from the value of a power-driven pump that has only a small area to irrigate.

Wiser owners send a son or servant to Bombay to learn how to run their engines and how to effect minor repairs and have little

trouble. A moderate number of iron plows are in use, but not much headway has yet been made with them. The old-fashioned wooden sugar-cane crusher has been almost universally superseded by iron machines.

Imports of Molasses into Hongkong.

The imports of molasses in various forms into Hongkong are continuing in considerable volume and the trade seems to be upon a rather firm basis. Most of the imports are purchased in Java. Prices paid in Java for the product can not be ascertained, but it is known that they are very low and that there are places in Java where the prices are so low that it does not pay to move the product. It comes almost entirely in kerosene tins, packed in cases, two tins to the case. At present dealers pay 40 cents local currency, or about 19 cents, gold, per case of two tins for transportation from Java to Hongkong. About 150,000 piculs or about 10,000 short tons of molasses, including blackstrap, are imported by the Chinese firms making a specialty of the trade. The best grade runs as high as \$1.70 local currency, or \$0.80 $\frac{3}{4}$ cents gold, and the poorest at \$1 local currency, or 47 cents gold, per picul of 133 $\frac{1}{3}$ pounds. The present average price for the average quality is between \$1.50 and \$1.60 local currency, or from 71 to 75 cents gold, per picul. The product is used largely in the manufacture of spirits and various vinegars and sauces peculiar to the Chinese and also used to some extent in the preserve trade.

Waste Silk Market in Japan.—The effects of the war on the Japanese waste silk market are reported as damaging as those on the raw silk market, business having been brought to a standstill. Simultaneously with the outbreak of the war all negotiations in the market were dropped and the market altogether closed.

The contracts entered into this season amount to 700,000 kin (933,333 pounds) for "kibiso," 210,000 kin (280,000 pounds) for "noshi," 180,000 kin (240,000 pounds) for re-reels, 150,000 kin (200,000 pounds) for pierced cocoons, and 140,000 kin (186,666 pounds) for waste cocoons. Prior to the trouble about 22 per cent. of the contracts were delivered, leaving the remaining contracts unfulfilled.

While delivery has thus become difficult, goods are daily arriving from all centers. Though under the war influences those arrivals have lately fallen off, still more than 100 bales are received daily at Yokohama. Therefore the visible stock at the port, which was increasing every day, stood on August 8 at 24,000 bales or more.

Chinese Government Purchases of Explosives.—The Chinese Government manufactures no high explosives, but purchases same from abroad, chiefly from Germany and Austria. This business is handled chiefly through German firms located in Peking and Tientsin, which make a specialty of supplying war materials to the Chinese Government.

The Government has 15 arsenals located throughout the country. Some of these are not running at present and it is stated that none are running to their utmost capacity. These arsenals are located in the following cities: Canton, Kwangtung Province; Chengtu, Szechuan Province; Foochow, Fukien Province; Hanyang, Hupeh Province; Hangchow, Chekiang Province; Kaifeng, Honan Province; Lanchow, Kansu Province; Nanking, Kiangsu Province; Sianfu, Shensi Province; Shanghai, Kiangsu Province; Taiyuanfu, Shansi Province; Tehchow, Shantung Province; Tsinan, Shantung Province; Urumtsi, Sinkiang Province; Yunnanfu, Yunnan Province.

The largest powder factory operated by the Government is in connection with the Canton Arsenal. Here both smokeless powder and black powder are manufactured. In addition there are a few small arsenals that manufacture black powder of an inferior grade. One of these is at Kaifeng and another at Yunnanfu.

However, the Government purchases most of its smokeless powder abroad and also a fairly large quantity of black powder.

There is no Government bureau or department which has charge of the purchase of supplies of war materials. When war materials are needed the military organization concerned makes a petition to the Board of War, which, after giving its consent, makes the necessary arrangements for the purchase.

Japanese Cotton Goods Exports.—The cotton mills of Japan have sold to foreign customers this year a much greater quantity of yarns and fabrics than ever before. The export figures for the first four months of 1912, 1913, and 1914 are as follows:—

Classification.	1912	1913	1914	1912	1913	1914
Quantity.	Quantity.	Quantity.	Quantity.	Value.	Value.	Value.
Yarn.....kin ¹ ...	25,483,000	47,831,000	60,267,000	\$6,476,000	\$12,213,000	\$15,929,000
Cloth.....dozen...	—	—	—	3,639,000	5,303,000	6,150,000
Towels.....dozen...	685,000	1,081,000	1,335,000	318,000	449,000	546,000
Underwear.....dozen...	1,078,000	1,249,000	1,536,000	803,000	960,000	1,143,000
Total.....dozen...	—	—	—	11,236,000	18,934,000	23,768,000

¹ Kin = 1 $\frac{1}{3}$ pounds.

Arms and Ammunition Trade in Siam.—The present firearms and ammunition law came into operation in Bangkok in October, 1912, and has since gradually been extended to the other districts of Siam, and while formerly the importation of ammunition and firearms into this Kingdom was prohibited, this law, under certain restrictions, provides permission for the manufacture, import, trade, and possession of the same. Six European firms have now received licenses for trading in firearms and ammunition, and it is understood that a very profitable trade in this line is in progress.

Although this law only came into operation during the latter half of the fiscal year ended March 31, 1913, yet the imports in small arms, rifles, fowling pieces, and revolvers advanced from 746 in number for 1911-12 to 1,141 for 1912-13, and in rounds of ammunition from 810,357 to 926,877. The figures for the fiscal year 1913-14 are not yet available, but from information obtained from licensed dealers it appears that the above figures have been more than doubled during this period, and at present the trade is still advancing.

In order to avoid delay and complications with the customs regulations at Singapore during transshipment the goods should be

shipped by steamers calling at Bangkok direct and at present only the East Asiatic Co. (Ltd.) maintains a Bangkok-European direct line of steamship service.

Chinese Vegetable Tallow.—The exports of Chinese vegetable tallow increased from 28,579,867 pounds in 1912 to 29,446,380 pounds in 1913. Of these totals 67 per cent. was exported from Hankow. Exports from Hankow to the United States amounted to 3,410,591 pounds in 1912 and 2,565,385 pounds in 1913. The tallow sells on the local market for 9 to 12½ taels per picul (\$4.37 to \$6.07 per 100 pounds).

Soya Beans Replace Poppy Culture.—Owing to the suppression of the use of opium in China, and the elimination of poppy cultivation, other crops are being planted. Consul E. Carleton Baker, of Chungking, states that soya bean growing has been started in that district in lieu of poppies.

FINANCIAL

China's Foreign Loans.—According to the *Pingpao*, the Customs Administration has prepared a list of the Foreign loans to become due in the next year of the Republic. The total amount of the loans to be due month by month next year is shown as follows:—

January	£150,182
February	152,370
March	150,182
April	150,182
May	150,182
June	218,883
July	218,848
August	150,182
September	150,182
October	150,182
November	150,182
December	150,182

The total amount is £1,941,639 or Taels 20,800,000, at 2s-8d to one tael.

A Japanese-American Commercial Bank.—The establishment of the Japanese-American Commercial Bank is being promoted by Messrs. Eiichi Shibuzawa, president of the First bank, Buei Nakano, president of the Tokyo Chamber of Commerce, Kenji Imanishi, director of the Chuya Savings Bank, and other representative business men. It will be organized with an initial capital of \$1,000,000, and will have its head office in Tokyo, with branches and agencies at the principal centers of Japanese immigration in the United States, Mexico, and South America.

Mr. Imanishi informs the American embassy that there is at present no financial institution for the accommodation of Japanese immigrants, and that the main object of the proposed bank is to meet this need. It will advance money to Japanese merchants, manufacturers, and farmers resident in the countries named, with a view to assisting them in the development of their enterprises and to promoting the expansion of the foreign commerce of Japan, by enabling the smaller merchants to take a share in the export and import trade.

Japanese Bank at Harbin.—The Japanese banking office which has been opened at Harbin will do a small credit business. It is a joint-stock company with a capital of 150,000 rubles (\$77,250 U. S. currency), made up of 3,000 shares of 50 rubles each, of which each shareholder has already paid one-fourth. This bank is intended especially to serve the interests of the local Japanese population.

Russian Bank in Mongolia.—The Chamber of Commerce, St. Petersburg, has

'applied to the authorities concerned for the establishment of a Russian bank in Mongolia.

Capital and Industry in Japan.—With Mr. Hayakawa, director of the Mitsui Bank, as its prime mover, a new movement has for some time past been under way among business men. In the opinion of Mr. Hayakawa and other promoters of the movement the slow progress of industry in this country is largely attributable to the lack of an institution adjusting the relation between capitalists and "enterprisers." At this juncture, when market depression is impending, it is highly desirable to have an institution whose function is to promote the harmonious working of capital and enterprise by underwriting promotion loans.

The movement is reported to have found many supporters among business men, and some of them, including Baron Shibusawa, Mr. Okura, Mr. Ohashi, Mr. Otani, Mr. Ono, Mr. Wakao, Mr. Nakano, Mr. Yasuda, Mr. Azabuki, Baron Kondo, Mr. Asano, etc., have already promised to give material support to the scheme. The Government, on the other hand, is said to have consented to make the realization of the scheme easy by effecting necessary alterations in the laws or regulations governing banking establishments.

Thus the scheme will shortly be under way. The following lines of business will be undertaken by the new institution: (1) Guaranteeing the tax payment or the transference of mortgages, in the event of the new institution being granted special privileges by the Government to do so; (2) contracting for public works or guaranteeing the supply of materials for Government works; (3) guaranteeing the fidelity of merchants or traders; (4) underwriting the loans or debentures; (5) insuring fidelity of employees.

COMPANIES

Liaoyang Electric Light Co.—At the fifth annual general meeting of this company the following accounts were passed:—

Net profit for the term...	Y. 9,722.52
Brought over from the preceding term	1,735.58
	11,458.10

Disposed of as follows:—

Reserve fund	Y. 5,000
Bonus to officers	720
Dividend to shareholders at 8 per cent. per annum	4,800
Carried forward to the next term	938.10
	11,458.10

Toyo Kisen Kaisha.—The following is the profit and loss account for the first half year:—

	Yen.
Net profit for the first half year ..	101,514.53
Brought over from last account ..	8,978.45
	110,492.98
Total	110,492.98
To be distributed:	

	Yen.
Loss reserve	5,100.00
Dividend at 6 per cent per annum on new shares	97,500.00
Carried forward to next account ..	7,892.98

Douglas Steamship Co., Ltd.—The General Managers' report for the year ended June 30, 1914, was as follows:—After paying all running expenses, docking charges, premia of insurance, remuneration of the consulting committee and auditors' fees, there remains a balance at credit of profit and loss account of \$90,684.25, which, with the approval of shareholders it is proposed to appropriate as follows:—

To pay a dividend of 6 per cent. on the capital of the Company, absorbing \$60,000 and to write off the balance of \$30,684.25 from the value of the Company's properties.

Cargo has been fairly plentiful throughout the year and rates of freight on the coast have shown a slight improvement.

The steamers and other properties of the Company have been maintained in good order, but the expenditure for repairs and upkeep has been heavy.

North-China Insurance Co., Ltd.—The report of the directors for the period ended June 30, 1914, states that the balance at credit of the 1913 account is Tls. 285,284.40 and, after deducting an interim dividend of 12½ per cent. aggregating Tls. 47,713.72 paid on May 1 last, there remains a sum of Tls. 237,570.68 which the directors recommend should be appropriated in the following manner:—A final dividend of 12½ per cent. on the paid-up capital, making 25 per cent. for the year; a bonus of 15 per cent. upon contributory premium; £10,000 transferred to sterling reserve, bringing that fund up to £160,000; and the balance to be transferred to underwriting reserve account, closing the account for 1913. The balance at credit of working account to June 30, 1914 amounts to Tls. 304,968.60.

Toyo Kisen Kaisha.—The general meeting of shareholders of this company was held recently at Tokyo when the following accounts were passed:—

	Yen.
Net takings for the term	101,514.53
Brought over from last account ..	8,978.45
	110,492.98
Total	110,492.98
To be distributed:—	
Loss reserve	5,100.00
Dividend at 6 per cent. per annum on new shares	97,500.00
Carried forward to next account ..	7,892.99

Hoden Oil Co. (Japan).—The following is the profit and loss account of this company:—

	Yen.
Net profit for the term	1,181,019.79
Brought over from last account ..	181,248.94
	1,362,268.73
Total	1,362,268.73
To be distributed:—	

Legal reserve	70,000.00
Dividend at 15 per cent. per annum	1,062,020.00
Bonuses for directors, auditors, employees, and hands	70,000.00
Fund for the relief of employees and hands	10,000.00

Meiji Sugar Manufacturing Co.—The profit and loss account of this company is as follows:—

	Yen.
Net profit for the term plus the balance brought over from last account	643,532.62
To be distributed:—	
Legal reserve	33,000.00
Fees for directors and auditors ..	33,000.00
Dividend at 12 per cent. per annum	535,500.00
Carried forward to next account ..	42,032.62

Astor House Hotel, Co. Ltd. (Shanghai).—At an extraordinary general meeting of the shareholders of this company the following resolution already adopted at a previous meeting was confirmed:—"That the capital of the Company be reduced from \$750,000, divided into 30,000 shares of \$25 each, to \$150,000, divided into 30,000 shares of \$5 each, and that such reduction be effected by cancelling capital which has been lost or is unrepresented by available assets to the extent of \$20 per share of each of the 25,520 shares which have been issued and are now outstanding and by reducing the nominal amount of all shares in the Company's authorized capital to \$5 per share."

James McMullan & Co., Ltd. (Chefoo).—At the fourth ordinary general meeting of this

company held on October 14, after providing for all charges, depreciation, etc., a dividend of 12½ per cent. was declared, Mex. \$5,000 placed to reserve, an amount set aside for employees' bonuses and Mex. \$262.84 carried forward to next year.

New Companies in Korea.—During the year 1913 the authorities of the Government General of Korea granted the necessary permission for the establishment of 27 new companies in Korea. The particulars of these companies are seen from the following table:—

Companies.	No.	Capital.
Joint stock.....	15	\$1,202,670
Limited partnership.....	7	118,873
Partnership.....	5	141,930
Total.....	27	1,463,473

In addition to these permissions sanction was also given during the same period by the authorities concerned for the establishment in Korea of branch offices of companies as follows:—

Companies.	No.	Capital.
Joint stock company with head office in Chosen.....	1	\$49,800
Joint stock companies with head offices in Japan.....	5	906,360
Limited partnership.....	1	2,490,000
Partnership.....	1	249,000
British company with head office in England.....	1	362,068
American company with head office in America.....	1	100,000
Total.....	10	4,157,228

The British company referred to is the Chosen Gold Mines (Ltd.), formed to work a gold mining concession in the southern part of the peninsula, while the American corporation is the local branch of the American-Oriental Engineering & Construction Co.

In addition to these, announcement was made in the Official Gazette of July 16, 1914, of the establishment in Seoul of a branch office of the Singer Sewing Machine Co., an American corporation capitalized at \$1,000,000.

New Confectionery Company.—The Far Eastern Confectionary Co., capital \$250,000 gold, has been promoted by a number of dealers in Seoul for manufacturing such articles as will readily find a market in Korea, Siberia, Manchuria, and other parts of China.

RAILWAYS

Tokyo Central Railway Station.—The completion of the Central Railway Station, which is to be the principal portal of the metropolis, will be celebrated on February 11 next year, the day of the celebration of the founding of the Empire. From that day on Shimbashi will cease to be the great gateway it now is, lapsing into the obscurity of a freight depôt, and probably even giving up its memorable name to the station that now bears the name of Karasumori.

The celebration was to take place much earlier, as the gigantic main building has already been finished. The delay is due simply and solely to the unexpected delay in the completion of the adjuncts—auxiliary buildings that cover an area of 200 tsubo.

In addition to the present electric railway between Tokyo and Yokohama owned by a private company, there will be a fresh electric double-track of the Government between the two cities when the Central Station becomes Tokyo's main entrance. The Government track will be connected with the Central Station.

While ordinary express trains will stop at Karasumori (it will then be known as Shimbashi) the fastest expresses will go directly from Hiranuma to the Central Station without stop, thus saving two or three minutes.

The next undertaking that the railway authorities are evidently determined to carry out at the earliest opportunity, is the establishment of direct connection between the Central Station and Uyeno. Already the purchase of grounds along the projected elevated route has been effected, and despite the difficulties of war finance it is believed that the work will be started in April next, to be completed in three years. A branching station will be built at Kaji-cho, Kanda, where the branch to Manseibashi will be connected with the Central-Uyeno line.

PERSONAL

Captain Archibald F. Commiskey, 7th. Cavalry, United States Army, has been appointed aide-de-camp to the Governor-General of the Philippine Islands.

The first-class of the Chiaocho decoration has been conferred upon Sir Richard Dane in recognition of his services in connexion with the reform of the Salt Gabelle.

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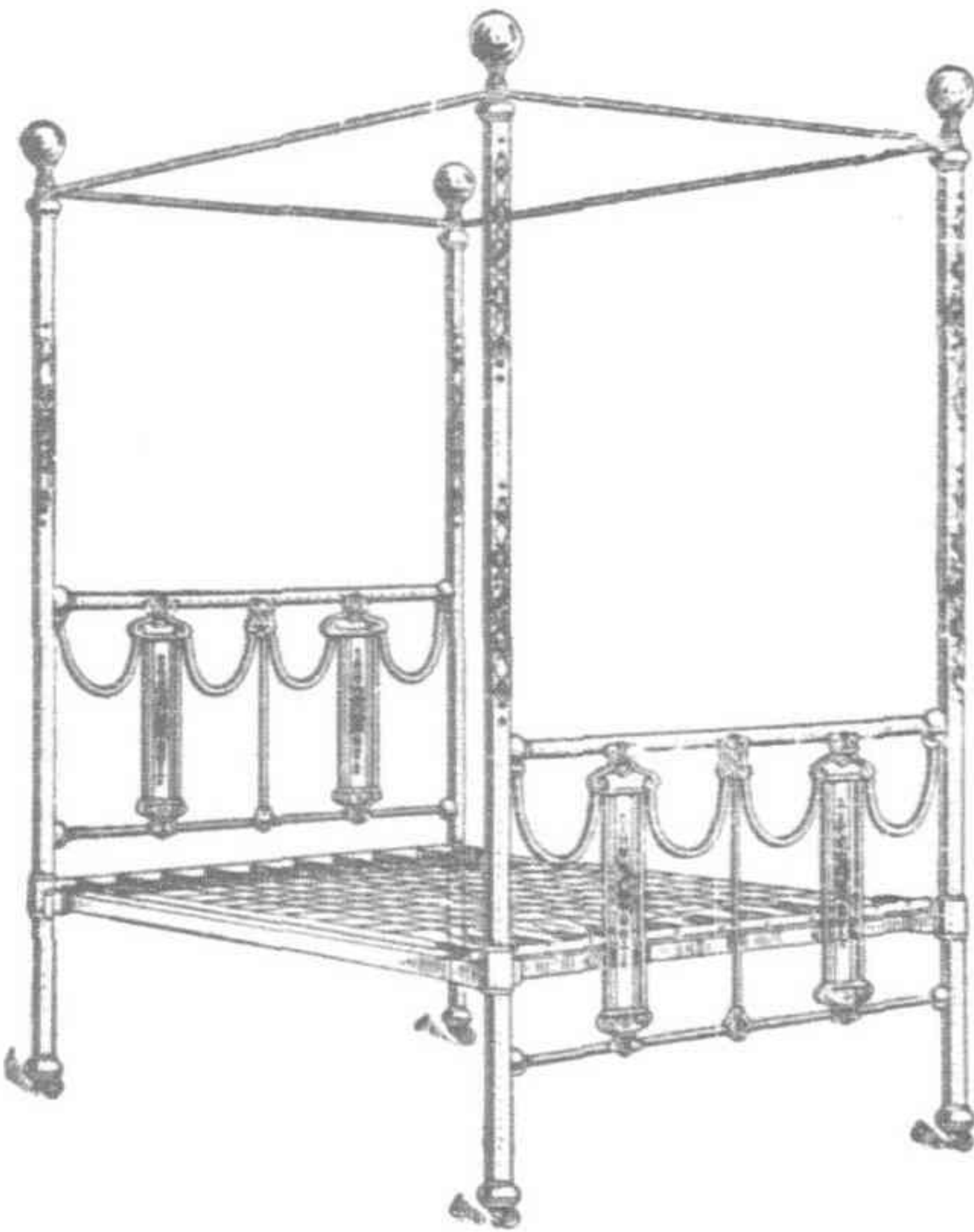
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1st
SUPPLEMENT TO
THE FAR EASTERN REVIEW
SHANGHAI
NOVEMBER
1914

TREATIES
CONVENTIONS
DECLARATIONS
LOAN AGREEMENTS
CUSTOMS AND RAILWAY
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RELATING TO
SHANTUNG



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CONVENTION BETWEEN THE GERMAN EMPIRE AND CHINA RESPECTING THE LEASE OF KIAOCHOU

The incidents connected with the Mission in the Prefecture of Tsaochau, in Shantung, being now closed, the Imperial Chinese Government considers it advisable to give a special proof of their grateful appreciation of the friendship shown to them by Germany. The Imperial German and the Imperial Chinese Governments, therefore, inspired by the equal and mutual wish to strengthen the bonds of friendship which unite the two countries, and to develop the economic and commercial relations between the subjects of the two States, have concluded the following separate Convention:—

ART. 1.—His Majesty the Emperor of China, guided by the intention to strengthen the friendly relations between China and Germany, and at the same time to increase the military readiness of the Chinese Empire, engages, while reserving to himself all rights of sovereignty in a zone of 50 kilom. (100 Chinese li) surrounding the Bay of Kiaochou at high-water, to permit the free passage of German troops within this zone at any time, as also to abstain from taking any measures, or issuing any Ordinances therein, without the previous consent of the German Government, and especially to place no obstacle in the way of any regulation of the water-courses which may prove to be necessary. His Majesty the Emperor of China, at the same time, reserves to himself the right to station troops within that zone, in agreement with the German Government, and to take other military measures.

ART. 2.—With the intention of meeting the legitimate desire of His Majesty the German Emperor, that Germany, like other Powers, should hold a place on the Chinese Coast for the repair and equipment of her ships, for the storage of materials and provisions for the same, and for other arrangements connected therewith, His Majesty the Emperor of China cedes to Germany on lease, provisionally for ninety-nine years, both sides of the entrance to the Bay of Kiaochou, Germany engages to construct, at a suitable moment, on the territory thus ceded, fortifications for the protection of the buildings to be constructed there and of the entrance to the harbour.

ART. 3.—In order to avoid the possibility of conflicts, the Imperial Chinese Government will abstain from exercising rights of sovereignty in the ceded territory during the term of the lease and leaves the exercise of the same to Germany within the following limits:—

(1.) On the northern side of the entrance to the bay:

The peninsula bounded to the north-east by a line drawn from the north-eastern corner of Potato Island to Loshan Harbour

(2.) On the southern side of the entrance to the bay:

The peninsula bounded to the south-west of a line drawn from the south-westernmost point of the bay lying to the south-south-west of Chiposan Island in the direction of Tolosan Island.

(3.) The Island of Chiposan and Potato Island.

(4.) The whole water area of the bay up to the highest water-mark at present known.

(5.) All Islands lying seaward from Kiaochou Bay, which may be of importance for its defence, such as Tolosan, Chalienchow, etc.

The High Contracting Parties reserve to themselves to delimitate more accurately, in accord with local traditions, the boundaries of the territory leased to Germany and of the 50-kilom. zone round the bay, by means of Commissioners to be appointed on both sides.

Chinese ships of war and merchant-vessels shall enjoy the same privileges in the Bay of Kiaochou as the ships of other nations on friendly terms with Germany; and the entrance, departure, and sojourn of Chinese ships in the bay shall not be subject to any restrictions other than those which the Imperial German Government, in virtue of the rights of sovereignty over the whole of the water area of the bay transferred to Germany, may at any time find it necessary to impose with regard to the ships of other nations.

IV.—Germany engages to construct the necessary navigation signals on the islands and shallows at the entrance of the bay.

No dues shall be demanded from Chinese ships of war and merchant-vessels in the Bay of Kiaochou, except those which may be levied upon other vessels for the purpose of maintaining the necessary harbour arrangements and quays.

V.—Should Germany at some future time express the wish to return Kiaochou Bay to China before the expiration of the lease, China engages to refund to Germany the expenditure she has incurred at Kiaochou, and to cede to Germany a more suitable place.

Germany engages at no time to sublet the territory leased from China to another Power.

The Chinese population dwelling in the ceded territory shall at all times enjoy the protection of the German Government, provided that they behave in conformity with law and order; unless their land is required for other purposes they may remain there.

If land belonging to Chinese owners is required for any other purposes the owner will receive compensation therefor.

As regards the re-establishment of Chinese Customs stations which formerly existed outside the ceded territory, but within the 50-kilom. zone, the Imperial German Government intends to come to an agreement with the Chinese Government for the definitive regulation of the Customs frontier, and the mode of collecting customs duties, in a manner which will safeguard all the interests of China, and proposes to enter into further negotiations on the subject.

SECTIONS II AND III.

The Chinese Government sanctions the construction by Germany of two lines of railway in Shantung. The first will run from Kiaochou and Tsinanfu to the boundary of Shantung province via Weihsien, Tsinchow, Pashan, Tsechuen and Suiping. The second line will connect Kiaochou with Chinchow, whence an extension will be constructed to Tsinan through Laiwuhsien. The construction of this extension shall not be begun until the first part of the line, the main line, is completed, in order to give the Chinese an opportunity of connecting this line in the most advantageous manner with their own railway system. What places the line from Tsinanfu to the provincial boundary shall take in en route are to be determined hereafter.

II.—In order to carry out the above mentioned railway work a Sino German Company shall be formed, with branches at whatever places may be necessary, and in this Company both German and Chinese subjects shall be at liberty to invest money as they so choose, and appoint directors for the management of the undertaking.

III.—All arrangements in connection with the works specified shall be determined by a future conference of German and Chinese representatives. The Chinese Government should afford every facility and protection and extend every welcome to representatives of the German Railway Company operating in Chinese territory.

Profits derived from the working of these railways shall be justly divided pro rata between the shareholders without regard to nationality. The object of constructing these lines is solely the development of commerce. In inaugurating a railway system in Shantung Germany entertains no treacherous intentions towards China, and undertakes not to unlawfully seize any land in the province.

IV.—The Chinese Government will allow German subjects to hold and develop mining property for a distance of 30 li from each side of these railways and along the whole extent of the lines. The following places where mining operations may be carried on are particularly specified along the northern railway from Kiaochou to Tsinan, Weihsien, Pashanhsien and various other points; and along the southern Kiaochou-Tsinan Chinchow line, Chinchowfu, Laiwuhsien, etc.

Chinese capital may be invested in these operations and arrangements for carrying on the work shall hereafter be made by a joint conference of Chinese and German representatives.

All German subjects engaged in such work in Chinese territory shall be properly protected and welcomed by the Chinese authorities and all profits derived shall be fairly divided between Chinese and German shareholders according to the extent of the interest they hold in the undertakings.

In trying to develop mining property in China, Germany is actuated by no treacherous motives against this country, but seeks alone to increase commerce and improve the relations between the two countries.

The Chinese Government binds itself in all cases where foreign assistance, in persons, capital or material, may be needed for any purpose whatever within the Province of Shantung, to offer the said work or supplying materials, in the first instance to German manufacturers and merchants engaged in undertakings of the kind in question.

In case German manufacturers and merchants are not inclined to undertake the performance of such works or the furnishing of materials, China shall then be at liberty to act as she pleases.

The above Agreement shall be ratified by the Sovereigns of both the Contracting States, and the ratifications exchanged in such manner that, after the receipt in Berlin of the Treaty ratified by China, the copy ratified by Germany shall be handed to the Chinese Minister in Berlin.

The foregoing Treaty has been drawn up in four copies, two in German and two in Chinese, and was signed by the Representatives of the two Contracting States on the 6th March, 1898, corresponding to the 14th day of the second month in the twenty-fourth year of Kuang-hsu.

(Great Seal of the Tsung-li Yamen)

The Imperial German Minister,

(Signed) Baron von Heyking.

Li Hung-Chang (in Chinese)

Imperial Chinese Grand Secretary.

Minister of the Tsung-li Yamen, &c., &c.

Weng Tung-Ho (in Chinese)

Imperial Chinese Grand Secretary, Member of the
Council of State, Minister of the Tsung-li Yamen, &c., &c.

CONCESSION GRANTED BY THE IMPERIAL GERMAN GOVERNMENT FOR THE CONSTRUCTION AND OPERATION OF A RAILWAY FROM TSINGTAU TO TSINANFU

In response to a request made by the Deutsche-Asiatischen Bank (German-Asiatic Bank) representing the Syndicate, formed for the establishment of a German-Chinese Company with the title of "Schantung Eisenbahn-Gesellschaft" (Shantung Railway Company) the Imperial Government agrees to grant to said company a concession for the construction and operation of a railway in the Chinese Province of Shantung, from Tsingtau via Weihsien to Tsinanfu with a branch line, starting from a point on the main line, to Poshan, according to the provisions of the German-Chinese Treaty of March 6, 1898, and under the following conditions:—

1.—The construction and maintenance of the railway shall be proceeded with by a German-Chinese Company, to be organised by the Syndicate upon the basis of the contract hereto attached.

This company will have its domicile at first in Berlin but will nevertheless remove the same to Tsingtau within six months from the date of granting the concession.

2.—The capital for the construction and operation of the railway is fixed at 54 million Marks.

Care is to be taken that Germans as well as Chinese may participate in the public subscription to the stock of the company. More especially, shall subscriptions be opened in the suitable commercial centers of East Asia, and the amounts there subscribed shall receive proper consideration.

3.—The management of the railway shall be domiciled at Tsingtau. The election of the President of the Board of Directors as well as the Chief Operating Official must be approved by the Imperial Government.

4.—The following regulations govern the construction of the railway:

1.—In the building of the railway lines the special preparatory work shall determine the best possible connection with the most important coal fields, more especially with those of Weihsien and Tzechuan as well as the chief cities and towns between Tsingtau and Tsinanfu, which, on account of their population or other significance, must be considered in their relation to railway traffic.

In the construction of the railway station at Tsinanfu consideration is to be given to the connection with the Hoang-ho and the continuation of the railway on the one side to the southern boundary of the Province of Shantung in the direction of Kiaochou (Chinkiang), on the other side following the North Boundary of the same Province in the direction of Tientsin and Chengting.

The Company must obtain from the Imperial Governor permission to carry out the railway line, in accordance herewith, in the territory of Kiaochou; outside the territory the permission of the Imperial Minister in Peking is to be obtained.

The lines may be built for single track; however sufficient land for the construction of a double track must be provided.

The gauge shall measure 1,435 meter.

II.—German material shall be used, as far as possible, in the construction of the railways.

III.—The completion and opening of the main line from Tsingtau to Tsinanfu, and of the branch line to Poshan must follow within a period of 5 years, dating from the grant of the concession, and that of the railway section from Tsingtau to Weihsien within a period of 3 years. Should the company be prevented from the fulfillment of these obligations by force major, the fixed periods shall be respectively extended.

5.—The following stipulations shall obtain for the operation of the railways:

I. The Governor of Kiaochou is to be notified of the proposed opening of the railway on any one section at least three days in advance of the time set.

II. The railway is to be equipped in due time with rolling stock according to the requirements of traffic. The material used shall be, as far as possible, of German origin.

The company binds itself to permanently maintain the railways, buildings, workshops and rolling stock, including the telegraph plants, in good order and condition, in order that transportation may be made with security and according to the stipulations of the present contract. The company shall be held responsible therefor by the Imperial Government, but no stricter regulations shall be issued for railways outside of the Protectorate than those in force on the majority of the railways in China, built and operated under similar circumstances. The railway police regulations applicable within the Protectorate shall be in force along the line of railroad operation.

III. The number of trains to be despatched is left to the discretion of the company, but it must meet the necessities of traffic as far as possible. The establishment of a schedule and changes therein are subject to the approval of the Governor of Kiaochou, with the understanding that no

greater obligations shall be required of the company than in the case of the majority of other railways built and operated under similar circumstances in China.

The time table is to be made public in due time.

IV. The fixing of the tariff for transporting passengers and freight on every railway section is left to the discretion of the company for the first ten years, beginning on January 1st following the opening of the railway, but the maximum rates for the transportation of coal, to be fixed by the Imperial Government after consultation with the company, may not be exceeded. Subsequent to this time, that is after the expiration of the ten years specified above, it is optional with the Imperial Government to fix the maximum rates for the various classes of passengers and goods every five years; within these limits the company shall be at liberty to fix the charges of transportation. All maximum rates to be fixed by the Imperial Government shall, however, not be lower than the maximum rates of the majority of railways built and operated under similar circumstances in China.

Rates for transportation as well as changes therein must be made known to the Governor before adoption, and shall be published in due course. Increased rates, should they not be approved by the Governor, shall come into force three months after publication only.

V. Use of the railway is to be granted to everybody under similar conditions. Especially the rates fixed for transportation are to apply equally to all persons or goods of the same class. Facilities of transportation which under fulfillment of the same conditions do not benefit everybody are inadmissible. Exceptional tariffs require the approval of the Governor of Kiaochou.

Upon demand of the Imperial Government the company is obliged to allow other contractors to connect with the railway by means of private connecting tracks or junction railways upon refunding to the Company the expenses incurred thereby, should the Company itself not build connecting tracks or junction railways within a reasonable time. The Company is further obliged to undertake the operation of the private connecting tracks and furnish the necessary means of transportation, for which it is to receive suitable compensation, and further, for a likewise reasonable compensation, to allow the passages of the necessary transportation material of the junction railways.

6.—Should the company culpably offend against one of the obligations imposed upon it by this document and not comply in due time with the injunction given by the Imperial Government to make good the offense, the Imperial Government may hold the company responsible for the losses accruing to the traffic through its fault, in an adequate sum of money.

Whether there has been a culpable offense on the part of the company, and whether in consequence of such offense the order of the Imperial Government has not been properly complied with, and what amount shall be paid for accrued damages, shall be finally determined by a Court of Arbitration to be formed as provided for in Section 7.

All moneys hereafter to be paid by the company shall be paid into the Treasury of the Imperial Government of Kiaochou.

Should a culpable action of the company relative to one of the imposed obligations contained in this document result in the railway section not being constructed or operated in due course, the Imperial Government is authorized to take over itself, or cause to be taken over by a third party, the construction or extension of the railway and the organisation or continuation of the traffic, all at the expense of the company. The question as to whether such a culpable action on the part of the company exists is also to be finally decided by the Court of Arbitration to be formed according to paragraph 7 of this document.

7.—The Court of Arbitration, provided for in Article 6, shall be formed in such manner that each party appoints two arbitrators and these shall elect an umpire. The Imperial Government will name its arbitrators to the company and, at the same time, request the company to appoint their arbitrators within four weeks, counting from the day of the handing in of the summons, and to name them to the Imperial Government. If the company does not comply with this summons in due time, the Imperial Government will also elect the necessary arbitrators. The umpire is elected by a majority vote. In the case of a tie the umpire will be appointed by the President of the Hanseatic Upper District Court. The regulations of the Tenth Book of the Civil Process, unless otherwise stated in this document, shall hold good for the arbitration proceedings.

8.—During the life of the concession, conveyed in this document, the Imperial Government will not grant to any other contractor the right to construct a railway section, running parallel in the same direction with the concessionary lines to the same points, or touching at several of their principal places.

9.—The Imperial Government of Kiaochou shall cede to the company such land in the Protectorate necessary for the construction of the railway, provided it is the property of the Government and, according to the declaration of the Governor, not indispensable for Government purposes, upon payment of the price prevailing in the locality, but which shall not exceed 125,000 marks. The Imperial Authorities will, as far as possible, assist the company at their request to acquire more land if necessary, should it lie in the protectorate or in the Province of Shantung.

10.—The Imperial Government will grant to the company, upon their request, the concession for the construction and operation of the railway from Tsinanfu to Ichoufu and from Tsingtau to Ichoufu, under conditions corresponding to those contained in this document.

As regards these railways, the company is free to await the end of the year 1908 before presenting this request. The concessions not solicited in due time can be otherwise granted by the Imperial Government.

11.—The company shall pay a contribution from the yearly net profits of the railway to be applied to the expenditures of the Government for the harbor works in the Bay of Kiaochou and also to the general running expenses of the Protectorate, which contribution is to be estimated as follows:

If after the opening of the traffic of the railway from Tsingtau to Tsinanfu, the net earnings of the railway would permit the payment of a yearly dividend of more than 5 per cent. of the paid up capital which is used in operating the railway, there shall be paid into the Government funds of Kiaochou the twentieth part of any surplus over 5 to 7 per cent., the tenth part of any surplus over 7 to 8 per cent., the fifth part of any surplus over 8 to 10 per cent., the third part of any surplus over 10 to 12 per cent., and the half of any surplus over 12 per cent.

12.—The Imperial Government reserves the right to purchase the railways to be constructed by the company in accordance with this

concession, after the end of sixty years, calculated from the date of the grant of the concession. The Imperial Government further reserves the right to buy at the end of every five years, including a one year's previous notice, all establishments, rolling stock, appurtenances, inclusive of the reserve and renewal funds earned by the railway enterprise, upon payment of twenty-five times the amount of the average dividends paid during the last five years from its earnings, or at least however, the commercial value of the existing railway plants, workshops and rolling stock. In case there should be any doubt in ascertaining the value, a Court of Arbitration, formed according to Article 7, shall decide. Should no sum obtain the majority of the votes cast the one nearest the average of the sums named by the individual arbitrators shall be accepted. The decision of the Court is final.

13.—The transfer, in whole or in part of the concession granted to the company, according to this document the rights and obligations appertaining to it in exercise of the same, under maintenance of its concessionary character, as well as any alteration in the contract, must, to become valid, have the approval of the Imperial Government.

The transfer of the concession itself or parts thereof to another company, not German or German-Chinese, is prohibited.

14.—The Imperial Government reserves the right of appointing a commissioner according to Article II of the second part of the German, Chinese Treaty of March 6, 1898.

15.—A copy of this concession document will be delivered to the company as soon as the company is regularly formed by the Syndicate.

16.—The charges for all expenses incurred in this document, especially the stamp duties, shall be borne by the company.

Baden-Baden June 1, 1899.

IMPERIAL CHANCELLOR,
Prince zu Hohenlohe-Schillingsfurst.

KIAOCHOU-TSINANFU RAILWAY AGREEMENT

The Agreement for the construction of the Kiaochou-Tsinanfu Railway was signed on March 21, 1900. The terms of the Agreement are as follows:—

ART. 1. According to the second clause in the Second Section of the German-Chinese Convention after the Tsaochou Mission Affair, the building of a railway line from Kiaochou to Tsinanfu by a Sino-German Company is sanctioned, and in this Company, both German and Chinese subjects shall be at liberty to invest money.

At first, the management of this Company shall rest with the Germans, temporarily. A report of the shares taken up by the Chinese shall be made every six months to the Shantung Bureau of Foreign Affairs, and as soon as these shares shall exceed the amount of Tls. 100,000, the Governor of Shantung shall appoint a satisfactory official to become a member of the company and assist in clearly defining the regulations.

ART. 2. If said Company shall hereafter establish any branch office within the Province of Shantung, this Province will then appoint a satisfactory Chinese official for said branch office to assist in matters of consultation and operation.

ART. 3. The Governor of Shantung shall appoint a special official to assist in the locating of the railway; the high local officials or prominent gentry of various places will also be invited to assist. This will be done in order that the conditions of the various places may receive no injury. But as to scientific questions, these shall all be settled by the Engineer, and in all matters relating to the buying of land, the specially appointed official must be consulted. When the route has been investigated, the Company must prepare a map of the lines showing all the conditions, the scale to be 25,000 to 1, which map is to be handed in to the Governor of Shantung, after which the matter of buying the land will be considered, and as soon as the land is all purchased, the work on the construction can begin. But as to the buying of the land, this matter must be managed as heretofore, with uniform promptness and peacefulness, that the owners of land may have no excuse for putting obstacles in the way, which would result in delaying the work. The Company will be permitted to buy only so much land as is actually needed in the construction of the railway, including what will afterwards be needed for the operation of the line. For small car-housing stations, it will be permitted to buy a piece of land about 630 metres long (1 metre=2 ft. 9.6 in. official measure, and 1 ft. official measure=338 millimeters), and about 70 metres wide. For large car-housing stations it will be permitted to buy a piece of land about 730 metres long and about 100 metres wide. For railway stations of medium size a piece of land 850 metres long and 130 metres wide can be bought adjoining the walls (of the cities). For large railway stations the amount of land that can be bought will depend upon the special conditions of the case, except only that the necessary amount shall be the limit. When it is necessary, however, to buy earth to use in making fills or elevations, it will not be understood that this must all come from within the limits set down above.

ART. 4. In the construction of the line, whenever the Company finds a place upon its land where a space should be left for water to flow—whether a bridge should be built or a sluice opened—they must leave satisfactory space for the flow, in order that no harm or hindrance shall come to the populace or their fields.

ART. 5. The railroads must not injure or obstruct any city walls or public works within the Province, nor any important strategical position that may be used for protection.

ART. 6. In constructing the railway, the Company must go around small villages and market towns, also ancestral halls, temples, graveyards, dwellings, and water-ways, orchards and vegetable gardens. These must not be made to suffer on account of the railway. And as for specially large and well arranged graveyards, these must receive special regard. In cases where it is impossible to avoid them, the matter should be thoroughly looked into and discussed by both parties, and the high local officials must be requested to give two months' notice to the owner of the property, that he may construct a new graveyard at another place modeled after the original one. Any person in such a case, moreover, must not be subjected to any financial loss.

ART. 7. In buying land the Company must use the Chinese units "kung" and "ch'ih" for measuring, one "kung" equalling five "ch'ih." (1 ch'ih=338 millimeters, and in any locality one "mu"—360 "kung" or 9,000 square "ch'ih"). The Provincial Treasurer will furnish standard lengths for the "kung" and "ch'ih," that both parties may be guided by them. As to the Government tax, that matter will be dealt with in the same manner as is done in other parts of China where foreigners have bought land for the construction of railways.

ART. 8. In transporting materials and men for the measurement and survey of the land, the Company must keep off of the fields and vegetable gardens of the people, and in cases where real damage has been done by trampling on the fields, and action therefor is brought, the Company will be required by the local high officials to make good the loss, out of pity for the abused party.

ART. 9. Whenever the local officials are requested to appoint some one to assist the company, said company must provide such person with money for meals; and this money must be kept in an entirely different account from that in which the money is kept for the purchase of land from the owners. The latter should be handed over to the local officials, to be received by them and handed over in turn to the owners. At the same time the local officials must send the Company a certificate of purchase for the land.

ART. 10. If the Company desires to rent any buildings or rooms along the line of the railway, they must first notify the high local officials, whereupon the said officials will consult with the owners and draw up a contract for the rent on behalf of the Company.

ART. 11. All materials necessary for the construction of the railroad must be bought at the market price, and a fair price given therefor; or else the local officials may be requested to buy them for the Company.

ART. 12. All silver and other money used by the Company must be exchanged justly at the rate of the place at the time.

ART. 13. The Company will not be permitted to act upon its off from the main line to connect with the mines, for the purpose of bringing down rock, lime, etc., such, for example, as the branch line at Poashan Hsien connecting with the main line—such roads will not come under this prohibition. But whenever it is desired to build one of these short branches

lines, permission must first be requested from the Governor of Shantung, that he may investigate the matter.

ART. 14. All section men appointed by the Company within the limits of Shantung Province must be provided with passports sealed by the officials of both countries. This is to assist the local officials in giving protection. Without such passport they can not assume the responsibility of protection.

ART. 15. All Chinese or Germans employed by the Company must be supplied with special certificates to that effect; sealed both by the local officials and the Company. This will facilitate the detection of imposters. When the road is being laid out, as well as when it is being constructed, it will be the duty of the Chinese officials to appoint men section by section, to accompany and assist (the railway employees) in looking after their things—such as wooden stakes, etc. Should any falsely assert himself to be in the employ of the Company, he shall be arrested and punished by the local officials.

ART. 16. Should it ever happen that it becomes necessary for soldiers to protect the railway outside of the 100 li zone (Kiao-chow concession) the Governor of Shantung shall detail such soldiers, and foreign soldiers can not be used. The Governor of Shantung having consented to use his utmost endeavors to protect the railway both in time of construction and operation, he must see to it that the railway receives no injury from bandits.

ART. 17. The object of constructing this line is solely the development of commerce, and it will not be permissible to transport foreign soldiers or munitions used by foreign soldiers to any place outside of the 100 li zone. If by any chance, the peaceful relations existing between China and any foreign Power become broken, the railway will still remain under the management of the Company, but the company must still observe the above rule. But if the offices are seized by an enemy, and the Company loses its control, then this Province will no longer assume the responsibility of protecting the line.

ART. 18. Should the Province be visited by famine or flood, so that it is necessary to send relief to the sufferers in the form of rice or clothes; or should there be any riot necessitating the use of soldiers, such soldiers (with their arms, provisions, and baggage) and such relief (as mentioned above) must be shipped at reduced rates according to such regulations as Germany has in her own country.

ART. 19. The Company must make satisfactory arrangements for the easy collection and receipt along its line, of such likin and Customs duties as are collectible in the Province on merchandise and domestic animals. As to the erection of Custom Houses, etc., the Customs officials of this Province will first discuss with the Company the amount to be expended, after which that matter will be taken up.

ART. 20. In the construction of the railway, the Company must employ among their men, people who live in the various villages along the line; and the Company shall also trade with them, that they may not be left out in the cold as it were.

ART. 21. All Chinese employed by the Company outside the German concession shall, if they break the law, be tried by the high local officials; and when a local official notifies the Company that according to Chinese law, a certain man should be tried as an offender, said offender shall not be given improper protection, or be in any way screened by the Company. If there be any offenders or law-breakers among the foreigners employed, and action be brought against them, they shall be tried by foreign law, and it will be the duty of the Company to make a thorough investigation of the case, and not show undue favor.

ART. 22. Competent men must be picked for work on the road, and natives of the place must be used as far as possible. Moreover, the price to be paid for labor must depend upon the various conditions of the place. If the laborers get into quarrels with the people, it will be the duty of the Chinese officials to arrest them and deal with them according to the law.

ART. 23. After the completion of the road, special men shall be detailed to watch and repair the line. Old residents in the various respective districts—men who have considerable means—shall be intrusted with the hiring of these men, in order to guarantee that the men who are hired will all be peaceful and reliable characters. Moreover, those who are intrusted with the hiring of the men must obtain from the local officials certificates for the men they hire. This is for convenience in investigation.

ART. 24. After all work in connection with the railway is completed and the road is being operated according to regulation, should there be any accident resulting in the injuring of any Chinese or damaging their property, the Company must repay them for their losses according to the conditions. At all times notices must be conspicuously placed. Damages must be paid also for all losses or injury to life or property caused by error or carelessness in the handling of the trains. Before the road is entirely completed, and when trains are running according to temporary schedule, this rule that damages must be paid for all losses or injury to life and property caused by error or carelessness in the handling of the trains, likewise holds good.

ART. 25. If there ever be any dangerous places in this province, such as flooded districts, fallen trestles, or damaged bridges, interfering with the operation of the railway, then these obstructions must be removed before the road can be operated again according to regulation.

ART. 26. If at any time, whether it be when the road is being located, constructed, or operated, the Company for some reason requests the Governor of Shantung to furnish soldiers for protection, it shall be his duty to investigate the matter immediately and grant the request, sending sufficient guards of soldiers to the place where they are needed. As to the amount of extra money which the Company shall pay such guards, this will be considered apart.

ART. 27. The title of and authority over all railroad lands outside the German concession, so far as they rested in the former owner originally, will revert from him to the Governor of Shantung. Title to, and authority over, the railroad lands within the German concession will revert to the German Governor.

ART. 28. The Chinese Government shall have the right to buy back this railroad in the future, but as to this matter, it will be considered separately later.

After the above articles have been adopted, signed, and sealed, they shall be sent to the Department and District officials, as well as to the various railway officials, that all may become familiar with them and act accordingly. Hereafter, if any alterations or additions are deemed necessary, they can be made only by consultation of the Governor of Shantung, or such competent and experienced officer as he may appoint, and the Company.

(Sgd.) YIN-CH'ANG,
Manager of Railway and Mining Affairs,
etc., etc., etc.,
YUAN (SHIH-K'AI),
Vice-President Board of War, Governor
of Shantung, etc., etc., etc.

Kuanghsu, XXVIth Year, Second Moon, 21st Day. March 21st, 1900.
(Signed on the part of the Chino-German Co. by Schmidt and Michaelis.)

BRITISH AND GERMAN AGREEMENT RE RAILWAY CONSTRUCTION IN CHINA

Minutes of Meeting held at New Court, St. Swithen's Lane, London, on the 1st and 2nd September, 1898.

Present:—Representing the German Syndicate—M.A. von Hansemann. Representing the British and Chinese Corporation, Ltd.—Mr. W. Keswick. Representing the Hongkong and Shanghai Banking Corporation—Mr. Ewen Cameron, Mr. Julius Brussel.

M. VON HANSEMAN proposed the following:—"It is desirable for the British and German Governments to agree about the sphere of interest of the two countries regarding the railway constructions in China, and to mutually support the interest of either country." This proposal was agreed to.

The following proposal of M. von Hansemann regarding the British and German spheres of interest for applications for Railway Concessions in China, viz.

"1.—British sphere of interest, viz.—The Yangtsze Valley, subject to the connection of the Shantung lines to the Yangtsze at Chinkiang: the provinces south of the Yangtsze; the province of Shansi with connection to the Peking-Hankow line at a point south of Chengting and a connecting line to the Yangtsze Valley, crossing the Hoangho Valley.

"2.—German sphere of interest, viz.—The province of Shantung and the Hoangho Valley with connection to Tientsin and Chengting, or other point of the Peking-Hankow line, in the south with connection to the Yangtsze at Chinkiang or Nanking. The Hoangho Valley is understood to be subject to the connecting lines in Shansi forming part of the British

sphere of interest, and to the connecting line to the Yangtsze Valley, also belonging to the said sphere of interest."

Was agreed to with the following alterations, viz.—"The line from Tientsin to Tsinan, or another point of the northern frontier of the Province of Shantung, and the line from the southern point of the province of Shantung to Chinkiang to be constructed by the Anglo-German Syndicate (meaning the German Syndicate on the one part, and the Hongkong and Shanghai Banking Corporation and the British and Chinese Corporation, Limited, on the other part in the following manner, viz.—

"1.—The capital for both lines to be raised jointly.

"2.—The line from Tientsin or to Tsinan or another point on the northern frontier of the Province of Shantung to be built and equipped and worked by the German group.

"3.—The line from the southern point of the province of Shantung to Chinkiang to be built and equipped and worked by the English Group.

"4.—On completion the lines to be worked for joint account." So far the minutes of the proceedings of the meetings, and it is further agreed upon that neither the German Group nor the English Group will be bound to construct the lines assigned to their sphere unless the Shantung lines be constructed simultaneously.

Signed London, September 2, 1898.

Approved of and signed by A. VON HANSEMAN, W. KESWICK, EWEN CAMERON, JULIUS BRUSSEL.

AGREEMENT CONCERNING THE ESTABLISHMENT OF A MARITIME CUSTOMS OFFICE AT TSINGTAU

SIGNED AT PEKING, APRIL 17, 1899.

1. The Commissioner or the Chief of the Maritime Customs Office at Tsingtau is to be of German nationality. The Inspector General of Customs will come to an understanding with the German Legation at Peking in case of appointing a new Commissioner.

2. The members of the European staff of the Maritime Customs Office at Tsingtau shall, as a rule, be of German nationality; in case, however, of a suddenly occurring vacancy or of temporary requirements of the service, members of other nationalities may be provisionally sent to Tsingtau.

3. The Inspector General of Maritime Customs will inform the Governor of Kiaochou beforehand about all changes in the staff of the Customs Office at Tsingtau; this, however, does not apply to the employees of the Chinese staff.

4. All correspondence between the Customs Office at Tsingtau and the German Authorities and German merchants shall be conducted in the German language. Should, however, merchants of other nationalities come to reside at Tsingtau, they shall be at liberty to correspond in their language; correspondence in Chinese shall be likewise permitted.

5. On merchandise brought by sea to Tsingtau no import duty shall be levied. Import duty according to existing Treaties shall be levied by the Maritime Customs office on all merchandise or products passing the German frontier of Kiaochou into the interior of China.

The German Authorities agree to take suitable measures to assist as far as it is possible in the prevention of merchandise passing the German frontier when not provided with a Permit or Pass by the Maritime Customs Office.

6. When Chinese merchandise or products brought from the interior of China into the German territory of Kiaochou are shipped from Tsingtau to other places, they will pay the export duty according to existing Treaties. Produce raised in, and merchandise manufactured from produce raised in or imported by sea into the German territory of Kiaochou shall pay no export duty. The duty to be paid by articles manufactured in the German territory from materials brought there from the interior of China will be settled later.

7. Chinese merchandise or products brought from Chinese treaty ports to Tsingtau shall pay no duty as long as they remain inside German territory; but if these Chinese merchandise or products pass the German frontier into the interior of China, they shall pay according to existing treaties.

8. Chinese merchandise shipped from Tsingtau and having paid accordingly export duty, shall be provided with a receipt, on the producing of which it shall pay, on being landed at a Chinese treaty port, a coast trade duty according to existing treaties.

9. For European and other non-Chinese merchandise on being shipped to Tsingtau from a Chinese treaty port the import duty paid at the latter port shall be refunded by drawback according to Article 26 of the German-Chinese Treaty of 1861. On being imported to Tsingtau such merchandise shall pay no duty, so long as it does not pass the German frontier into the interior of China. On being re-exported from Tsingtau to other places outside China, such merchandise shall pay no export duty.

10. Chinese merchandise or products having been shipped from a Chinese treaty port to Tsingtau and re-shipped from there to places outside China, shall on this occasion pay no export duty, in case the documentary evidence is produced of their having paid export duty at the treaty port from which they came.

11. The Maritime Customs Office at Tsingtau shall take no part in the collection or administration of tonnage dues, lighthouse dues or port dues.

12. The Customs tariff in force in the Chinese treaty ports shall be applied likewise by the Maritime Customs Office at Tsingtau.

13. The Maritime Customs agrees to levy on all opium brought to Tsingtau the same duties and taxes (likin) which are levied on opium in Chinese treaty ports. The duties and taxes collected on opium which enters into consumption inside the German territory shall be collected by the Maritime Customs for account of the German Government, and be paid over to the latter at certain intervals, to be fixed at convenience.

14. The Government of Kiaochou agrees to set apart for the Maritime Customs Office sufficient space at Tsingtau for building offices, lodgings for the staff, with suitable room for garden, stables, and servants quarters. The amount to be paid for the sale or lease of such ground is to be settled locally by mutual agreement.

15. The Chief of the Customs Office and the members of the staff shall be free from all obligations to act as jurors or assessors or from any other personal services.

16. The Maritime Customs Office at Tsingtau, as designated in the above Articles, shall take charge of the collection of duties, taxes, or likin on all Chinese built vessels (junks) coming to Tsingtau or to other places in the bay of Kiaochou and on all merchandise brought in such vessels. The duties, taxes or other charges collected from Chinese built vessels or from merchandise brought by them to Tsingtau shall not exceed the charges which have hitherto been levied from such vessels and such merchandise at Tsingtau or in other places in the bay of Kiaochou. Should at any time the charges levied on Chinese built vessels and on merchandise brought by them at other ports in the province of Shantung be less in amount than such charge in the bay of Kiaochou, the latter shall be reduced to the amount levied in those other ports.

17. The aforesaid Maritime Customs Office at Tsingtau shall be charged likewise exclusively with the granting and issuing of transit passes for merchandise going into the interior of China, as well as for merchandise coming from the interior of China to Tsingtau; and this office will be charged as well with all and every function, right, or capacity appertaining in the treaty ports to the so-called Chinese Customs Taotai.

18. For the transit passes mentioned in Article 17, the duty, according to existing treaties, i.e., half of the amount of the export or import duty—shall be collected by the Maritime Customs office at Tsingtau.

19. The procedure to be observed in case of frauds or contraventions committed by merchants against the Maritime Customs rules shall be settled hereafter by a separate Agreement, but it is understood in principle that all judicial procedure rests with the German tribunals at Tsingtau.

20. In view of the possibility that with the development of commercial activity at Kiaochou new requirements may arise which are not to be foreseen, it is understood that the present Agreement bears a provisional character, that both parties to it agree to introduce amendments as soon as required for the purpose of remedying inconveniences which may arise in the practical execution of this Agreement.

Signed at Peking, the 17th of April, 1899.

(Signed) HEYKING,
Minister of Germany.

(Signed) ROBERT HART,
Inspector General of Customs

AGREEMENT BETWEEN GREAT BRITAIN AND GERMANY DEFINING THEIR MUTUAL POLICY IN CHINA

SIGNED AT LONDON, 16TH OCTOBER, 1900.

Her Britannic Majesty's Government and the Imperial German Government being desirous to maintain their interests in China and their rights under existing Treaties, have agreed to observe the following principles in regard to their mutual policy in China:

1.—It is a matter of joint and permanent international interest that the ports on the rivers and littoral of China should remain free and open to trade and to every legitimate form of economic activity for the nationals of all countries without distinction; and the two Governments agree on their part to uphold the same for all Chinese territory as far as they can exercise influence.

2.—Her Britannic Majesty's Government and the Imperial German Government will not, on their part, make use of the present complication to obtain for themselves any territorial advantages in Chinese dominions,

and will direct their policy towards maintaining undiminished the territorial condition of the Chinese Empire.

3.—In case of another Power making use of the complications in China in order to obtain under any form whatever such territorial advantages, the two Contracting parties reserve to themselves to come to a preliminary understanding as to the eventual steps to be taken for the protection of their own interests in China.

4.—The two Governments will communicate this Agreement to the other Powers interested, and especially to Austria-Hungary, France, Italy, Japan, Russia, and the United States of America, and will invite them to accept the principles recorded in it.

SALISBURY,
HATZFELD.

DECLARATION BY GREAT BRITAIN RESPECTING WEIHAIWEI

APRIL 19, 1898.

England formally declares to Germany that in establishing herself at Weihaiwei, she has no intention of injuring or contesting the rights and interests of Germany in the Province of Shantung, or of creating difficulties for her in that province. It is especially understood that

England will not construct any railroad communication from Weihaiwei and the district leased therewith into the interior of the Province of Shantung.

AMENDMENT TO THE AGREEMENT RE THE ESTABLISHMENT OF A CUSTOM HOUSE IN TSINGTAU

SIGNED AT PEKING, DECEMBER 1, 1905.

Preamble.

The Chinese and German Governments being anxious to amend the Agreement of the 17th April, 1899, with a view to putting the relations between the Colony of Kiaochow and the Chinese Customs on a still better basis, have agreed to the amendments represented in the following Articles.

The basis of this arrangement is that the Chinese Government on its part (1) agrees to pay the German Government a certain proportion of the Import Duties on goods, Opium included, landed in the German territory, and (2) consents to the modifications of Treaty-port Customs practice and principles which said Articles establish; and that the German Government on its part, in consideration of the Chinese payment and consent, undertakes to facilitate the working of the Imperial Chinese Customs establishment established and operating in the German territory and to aid in safeguarding the revenue legitimately payable.

With the object of carrying out the necessary amendments, the under-mentioned Articles, duly agreed to by both parties, have been made.

Art. 1. After the delimitation of the Tsingtau free area by the German officials the Chinese Maritime Customs established in the German territory will levy all the Duties payable on goods passing outside the free area, and the Chinese Government will hand over annually to the German officials at Tsingtau 20 per cent. of the net Import Duties collected, as shown by the statistics of the Kiaochow Customs, as its contribution to the expenses of the territory. This percentage will be fixed for the present provisionally for five years, and payment will be made in quarterly instalments after the end of each quarter. If this arrangement, fixing the contribution at 20 per cent., should at any time seem to either party to require amendment, notice is to be given to the other before the beginning of the fifth year, in order to afford time for reconsideration.

Art. 2. The limitation of the free area, which is to be established at the Great Harbour, and its probable extension later, on account of the progressing harbour works, will be made as convenient as possible for carrying on Customs work.

Art. 3. On articles which are Duty free by existing Customs Tariff no Duty will be levied.

The following are Duty Free:

FOR THE GERMAN TROOPS.

(a) Articles for arming and outfitting the troops, including Uniforms, if directly ordered by the military or naval authorities and if accompanied by Certificate of the Colonial Government.

(b) Stores and Provisions ordered by the military or naval authorities in anticipation of future requirements, if accompanied by Certificate of the Colonial Government.

FOR THE GENERAL PUBLIC.

(c) Machinery, Plant, as well as Parts of Machinery, Implements and Tools required for manufacturing, industrial, and agricultural purposes; also all Building Materials, Fittings, and other articles for public and official works. A written Bond for the value of the goods must in each case be handed to the Customs certifying that the articles are solely for use in the German territory. If, later, they are to be conveyed into China, they must be declared to the Customs and pay Import Duty.

Failure to do so will involve enforcement of the Bond for recovery of double the amount of Duty on the value specified in it.

(d) Articles (Vehicles and such like) passing to and fro between the free area and outside, solely for ordinary repairs; but they are to be reported to the Customs Officers, that their passing may be noted.

(e) All postal parcels imported and destined for private use in the German territory, if the Duty which has to be taxed in accordance with the attached declaration does not exceed \$1 (value \$20). The Customs are at liberty to examine such parcels and verify declarations as occasion demands.

(f) The personal luggage of passengers, declared as not containing dutiable or contraband goods; it will only be examined in cases where the Customs consider it specially necessary.

Art. 4. The regulations laid down in Arts. 5, 7, and 9 of the Agreement of 17th April, 1899 as to levying of Import Duty are hereby modified, in so far that the free Duty area is limited to the free area. Payment of Duty therefore will be made according to circumstances, either when leaving the free area or, if to be landed elsewhere, before landing. By the payment of the Duty the goods pass into free circulation, and out of Customs control. Provisions having been thus made for effective collection of Duty in Tsingtau, Customs Stations on or near the frontier will, under the provided conditions, be unnecessary, and the question of establishing such can for the time being be postponed; such Stations as are required for the control of junk traffic are excepted.

Art. 5. For manufactories which are erected outside the free area, arrangements are to be made according to which manufactures will not be treated less favourably than if they came from the free area. Labour in the German territory is free of tax; consequently manufactures made in the German territory from raw materials which have been imported from the hinterland or by sea into the German territory, are, at reshipment, only subject to such Duty payment as China has by Treaty claim for on the raw material. A list of articles entitled to be treated as raw material will, if needed, be drawn up by the Customs and Colonial authorities and revised annually at the end of each year.

Art. 6. All trading and shipping facilities and privileges which are granted in Chinese Coast ports are to be extended to the German territory, with such modifications as local conditions may require.

Art. 7. In cases of fraud and offences against the Customs regulations, the procedure will be conducted in accordance with the spirit of the "Joint Investigation Rules of 31st May, 1868"—a Colonial officer specially named by the Government to take the place of the Consul.

Art. 8. It is understood that this Agreement is an amendment of the original Agreement of 17th April, 1899, made in accordance with Art. 20 of the latter, which, unless where modified hereby, remains in full force.

Signed and sealed at Peking this first day of December nineteen hundred and five by Baron Mumm von Schwarzenstein, His Imperial German Majesty's Minister, on behalf of the German Government, and by Sir Robert Hart, Bart., G.C.M.G., Inspector General of Imperial Chinese Customs, on behalf of the Chinese Government.

(Seal)

(Signed) A. v. Mumm.

(Seal)

(Signed) Robert Hart.

THE WEIHAIWEI CONVENTION, 1898.

RATIFICATIONS EXCHANGED IN LONDON, 5TH OCTOBER, 1898.

In order to provide Great Britain with a suitable naval harbour in North China, and for the better protection of British commerce in the neighbouring seas, the Government of His Majesty the Emperor of China agrees to lease to the Government of Her Majesty the Queen of Great Britain and Ireland, Weihaiwei, in the province of Shantung, and the adjacent waters for so long a period as Port Arthur shall remain in the occupation of Russia.

The territory leased shall comprise the island of Kiukung and all other islands in the Bay of Weihaiwei, and a belt of land ten English miles wide along the entire coast line of the Bay of Weihaiwei. Within the above-mentioned territory leased Great Britain shall have sole jurisdiction.

Great Britain shall have, in addition, the right to erect fortifications, station troops, or take any other measures necessary for defensive purposes, at any points on or near the coast of the region east of the meridian 121 degrees 40 min. E. of Greenwich, and to acquire on equitable compensation within that territory such sites as may be necessary for water supply, communications, and hospitals. Within that zone Chinese administration will not be interfered with, but no troops other than Chinese or British shall be allowed therein.

It is also agreed that within the walled city of Weihaiwei Chinese Officials shall continue to exercise jurisdiction, except so far as may be inconsistent with naval and military requirements for the defence of the territory leased.

It is further agreed that Chinese vessels of war, whether neutral or otherwise, shall retain the right to use the waters herein leased to Great Britain.

It is further understood that there will be no expropriation or expulsion of the inhabitants of the territory herein specified, and that if land is required for fortifications, public offices, or any official or public purpose, it shall be bought at a fair price.

This Convention shall come into force on signature. It shall be ratified by the Sovereigns of the two countries, and the ratifications shall be exchanged in London as soon as possible.

It witness whereof the undersigned, duly authorised thereto by their respective Governments, have signed the present agreement.

Claude M. Macdonald,

Prince Ching, Senior Member of the
Tsung-li Yamen.

Liao Shou Heng, President of the
Board of Punishments.

Done at Peking in quadruplicate (four copies in English and four in Chinese) the first day of July, in the year of our Lord eighteen hundred and ninety-eight, being the thirteenth day of the fifth moon of the twenty-fourth year of Kuang Hsu.

PROVISIONAL CUSTOMS REGULATIONS FOR THE GERMAN TERRITORY OF KIAOCHOU

1. (a) The import of Foreign and Chinese goods and produce into German territory is free, with the exception of Opium, Arms, and Explosives and the materials used in the manufacture thereof, which are subject to special regulations. (Vide paragraphs 2 and 3.)

(b) Foreign goods and Chinese commodities unaccompanied by duty-paid certificates imported from Chinese ports must pay tariff import duty on exportation from German into Chinese territory.

(c) Chinese goods imported from native ports, accompanied by duty paid certificate, must pay coast trade duty on exportation to the Chinese hinterland.

(d) Goods arriving from the interior when exported pay tariff duty.

(e) German territorial produce or goods manufactured from it, if accompanied by an official certificate (Urprungszeugniss) are not liable to export duty upon shipment from Tsingtau.

(f) Goods forwarded to or coming from the interior under transit pass must pay transit dues in addition to the import or export tariff duty.

2. Opium can only be imported in original chests, and must on arrival be reported to the Customs, who will supervise its transportation to the Customs godown.

Upon payment of duty and likin opium may be exported under Customs seal and control from German into Chinese territory.

The importation and consumption of opium in German territory is subject to special regulations. (see below).

3. The importation into German territory of arms and explosives as well as materials used in the manufacture of the same, is subject to special regulations. (see below).

The export of the same from German into Chinese territory is prohibited except under huchau and special regulations after furnishing a sufficient guarantee.

4. The masters of vessels arriving at Tsingtau, (or the agents,) and having on board merchandise destined for the interior of China, will hand to the Customs offices a manifest for such merchandise and customs papers, if coming from a Chinese port. Manifest must be delivered within twenty-four hours.

The manifest must be a correct statement of the aforesaid merchandise, and, if called for, fuller particulars must be supplied for statistical purposes.

Consignees of import cargo are requested to furnish the customs with full particulars as to value, weight, and quantity of their goods for statistical purposes.

5. Goods arriving from Chinese ports under duty paid certificate are subject on importation to Customs inspection, under penalty of loss of coast trade duty privileges.

6. (a) A permit to ship will be issued by the Customs for goods to be exported after they have been examined and have paid the tariff duty. No cargo may be taken on board without such Customs permit or shipping order bearing the Customs seal, under penalty of confiscation.

(b) Duty paid cargo which cannot be received on board ought to be reported to the Customs before being reloaded, in order to secure exemption from export duty when subsequently shipped.

(c) When the loading of a vessel is completed, a manifest of her outward cargo must be handed into the Customs by the master or agent. It must contain an account of the marks, numbers, contents, etc., of every package on board. For exhibiting a false manifest the master is liable to a fine not exceeding a hundred dollars.

(d) When a vessel's clearance is applied for, her stamped permit and shipping orders are examined on board; and if they are found in order

and the Customs are satisfied of the correctness of the manifest, and that the whole of the export duties have been paid, the Customs clearance is handed to the captain and the vessel is entitled to receive back her papers from the harbour department, and leave the port.

7. The Customs House is open for the receipt and issue of all Customs papers from 10 a.m. to 4 p.m. on all days, Sundays and holidays excepted.

8. In case of confiscation and fines imposed by the Commissioner of Customs, the person has the right of appeal to the official nominated for such duty by the Kiaochou authorities. In such cases the procedure will be conducted in accordance with the spirit of the "Rules for Joint Investigations in Cases of Confiscation and Fine by the Customs House Authorities," Peking, May 31, 1898.

9. Above regulations apply to all merchant vessels and junks.

SPECIAL REGULATIONS FOR THE IMPORTATION AND CONTROL OF OPIUM, ARMS AND EXPLOSIVES AND ARTICLES USED IN THE MANUFACTURE THEREOF.

A.—Import of Opium.

Opium can only be imported in original chests; the importation of smaller cases is forbidden. All opium must on arrival be reported without delay to the Customs, who will supervise its transportation to the Customs godown. The Customs officials are entitled to stop all suspicious goods and to search the ship, in which case the Captain is to render all possible assistance.

B.—Consumption of Opium.

Opium for consumption in German territory must be prepared under the supervision of the Government and the Customs. When prepared, the Opium is packed in tins containing 10, 20, 30 and 40 grammes, and each tin provided with a stamp corresponding to the selling price. It can only be sold by licensed dealers, and a charge will be made for the license.

Arms and explosives, as well as materials used in the manufacture of the same, must at once be declared on arrival, discharged and stored in accordance with harbor regulations.

Powder and other explosives, as well as materials used in their manufacture must be stored in special godowns and cannot be delivered without permit from the harbor department. Storage will be charged for.

Arms must be stored in the Customs godown and cannot be delivered without permit from the Harbor Department. A charge will be made for storage.

SPECIAL AGREEMENT.

1. The Customs agree to place the annual returns as soon as compiled and before they are printed, at the disposal of the Imperial Government, also to afford if possible, statistical information when required.

2. The Customs will collect the duties on opium consumed in German territory, and will remit the same to the Government monthly, after deducting 2½% for cost of collection.

3. The Government agrees to hand over to the Customs, free of charge, land for the necessary official Customs buildings, and such houses which have hitherto served that purpose and may now be required by the Customs.

4. The Customs shall be allowed to exercise Customs control, and to station officers at certain places—yet to be determined—in the German territory (Pacht Gebiet).

ORDINANCE REGULATING PROCEDURE IN CUSTOMS MATTERS IN THE KIAOCHOU TERRITORY

TSINGTAU, DECEMBER 2, 1905.

I.—General Rules.

1. All goods imported by sea into or exported from the German territory, with only such exceptions as are specified below, are subject to Duties on importation or exportation at the rates specified in the Chinese Tariff for Foreign trade for the time being in force. Goods forwarded to or coming from the interior under Transit Pass must pay the Treaty Transit Dues in addition to the Import or Export Tariff Duty.

2. The Customs procedure is guided by the principles and follows the practices which are in force at the Chinese Maritime Custom Houses at the various Treaty ports, and Customs control wherever necessary is exercised by its officers.

3. Import and Export Manifests of all vessels made out in accordance with the provisions of the Treaties must be handed to the Customs. The Manifests to be signed either by the master of the vessel, who in that case is held responsible, or by the agent of the vessel, in which case he will be responsible.

4. Junks repairing to the special points they frequent excepted, no vessel is allowed to work cargo until Import Manifest has been handed in to the Customs, nor to allow it to leave the ship outside the free area until Customs Permit has been issued. Applications for goods to be landed or shipped outside the free area must specify the locality—what jetty, etc.—they are to be landed at or shipped from.

II.—Free Area.

5. The free area comprises the Great Harbour including the Moles, the wharf territory, and the enclosing embarkment, and the territory in front of the harbour as far as the chief railway embarkment. It is limited in the south-west by a line between Inner Harbour and railway embarkment near the junction of Rechtenstrasse and Grosse Hafenweg, and in the east by a line between railway and enclosing dam near the block station. An extension of the free area is reserved for later use at any time according to requirement. The following are the boundaries of the area kept for possibly required extension in the future, viz., the railway embarkment to the block station, including territory to be filled in on the one side to the extent of 200 metres east of the enclosing dam; on the other side (west) to the railway viaduct off the Shansistrasse along the road to Oster's Slip, including small and large harbours.

6. The free area shall not be made use of for dwellings, with the exception of those which are necessary for warehouse and wharf controllers, harbour, Customs, and police officers, nor for petty trade, with the temporary exception of a fixed number of Chinese street cookeries for the use of coolies. Factories are, in principle, allowed.

7. The Customs control within the free area, as well as at the exits, is exercised by the Chinese Custom House.

8. The Customs Duty account of all vessels must be settled within ten days of the ship's clearance, and Duty on all Imports passing beyond the free area paid.

9. Goods arriving by sea or from the *hinterland*, which are intended to be stored, sorted, and worked up in the free area, shall be notified to the Customs, who will then take them under supervision. At the time of the notification the following details have to be supplied: mode of conveyance by which the goods arrived, and, if by sea, name of ship, name and address of consignee, date of arrival, number of packages, kind of packing, marks and numbers, and general description of the goods.

10. Goods which are destined to be exported by sea from the free area have to pass the Customs. Goods without Customs papers are not allowed to be received on board.

11. Traffic of every kind (carriages, carts, railway, junks, sampans, tugs, steamers, etc.) by sea and land frontier of the free area is subject to the supervision of the Customs.

III.—Duty-Free Goods.

12. On articles which are Duty free by Treaty no Duty will be levied. The following are Duty free:—

FOR THE GERMAN TROOPS.

(a) Articles for arming and outfitting the troops, including Uniforms, if directly ordered by the military or naval authorities and if accompanied by Certificate of the Government.

(b) Stores and Provisions ordered by the military and naval authorities in anticipation of future requirements, if accompanied by Certificate of the Government.

FOR THE GENERAL PUBLIC.

(c) Machinery, Plant, as well as Parts of Machinery, Implements and Tools required for manufacturing, industrial, and agricultural purposes; also all Building Materials, Fittings, and other articles for public and official works. A written Bond for the value of the goods must in each case be handed to the Customs certifying that the articles are solely for use in the German territory. If, later, they are to be conveyed into China, they must be declared to the Customs and pay Import Duty. Failure to do so will involve enforcement of the Bond for recovery on double the amount of Duty on the value specified in it.

(d) Articles (Vehicles and such like) passing to and fro between the free area and outside, for ordinary repairs; but they are to be reported to the Custom officer, that their passing may be noted.

(e) All postal parcels imported and destined for private use in the German territory, if the Duty, which has to be taxed in accordance with the attached declaration, does not exceed \$1 (value \$20). The Customs are at liberty to examine such parcels and verify the declarations as occasion demands.

13. The personal luggage of passengers, declared as not containing either dutiable or contraband goods, is passed free of Duty and, as a rule, without examination; but the right of examination is reserved to the Customs in cases where it may be considered specially necessary.

Duty is leviable on articles carried in excess of those reasonably necessary for personal use or if expected to be sold.

IV.—Manufactures in the German Territory.

14. Manufactures in the German territory are only subject to Duty in so far as China is entitled to Duty on the raw material.

(a) Chinese raw material landed in German Territory from the *hinterland* or non-Treaty ports and intended for use in a manufactory may be declared to the Customs and a Bond for any Duty payable on same deposited.

When the articles manufactured from this raw material come to be exported, they will pay Export Duty on the material used, and the Duty guaranteed by the Bond shall be cancelled to that extent.

Duty guaranteed by the Bond must be paid or accounted for before the expiration of three years from its date.

It will be optional for the exporter to pay full Tariff Duty on the exported article instead of on the raw material used in its manufacture.

(b) Any Import or Coast Trade Duty levied on raw material arriving from Foreign countries or from the Treaty ports of China will be refunded at the time of exportation by sea of the manufactured articles made therefrom, provided that at the time of importation such material was duly declared at the Customs House as for use in a manufactory.

(c) An arrangement will be made by agreement of Colonial and Custom authorities that when the various classes of manufactured articles are exported, the amount of raw material used will be fixed as a definite proportion and the Export Duty will be diminished accordingly.

(d) The factories entitled to claim the treatment as specified above will be registered, and a list of them, revised as required and if needed, furnished to the Customs.

V.—Opium.

15. Opium can only be imported by vessels in original chests. The importation of smaller quantities than one chest is forbidden. All opium on board of ships, including that intended for consumption during the journey, must, on arrival of the ship, be reported without delay to the Customs, who will supervise the transportation to the Customs godown of so much as is to be landed.

16. Opium from the German territory to China or from China to the German territory can only be conveyed by rail, on special Bill of Lading and as "Eilgut." It is forbidden to carry it as passenger's luggage. All Bills of Lading, etc., for arriving Opium are handed by the railway to the Customs in the German territory, who will notify the addressees.

17. The consumption of Opium in the German territory is subject to special regulations.

VI.—Arms, Powder, Explosives, etc.

18. Arms, Powder, Explosives, and the like, as well as materials used in the manufacture of the same, must be declared on arrival and discharged and stored in accordance with the regulations of the Colonial Government.

19. The export of Arms and Munitions of War of all kinds, as well as materials used in the manufacture of the same, from the German into Chinese territory is prohibited; exception is only made in the case of articles covered by Special Permit issued by the Commissioner of Customs in accordance with Chinese regulations.

20. The storage of Arms and Explosives in the German territory, as well as the trade in the same, is subject to special regulations.

VII.—Mail Matter.

21. Mail matter may be landed or shipped by the Post Office at any time.

22. Postal parcels will be received by the Post Office only if accompanied by a declaration form viséd by the Customs.

23. Parcels destined for Tsingtau will be handed, immediately after arrival, by the Post Office to the Customs for assessment of Duty. The declaration form will be delivered to the addressee in the same way as other mail matter. The addressee will produce the declaration form at the Customs, and on payment of Duty, if any (vide 12. (e)), the parcel will be delivered by the Customs. For such parcels as are destined for other places in the German territory where German Post Offices operate, the Duty payment of such parcels will be made, on application of the addressee, by the German Post Office, who will collect the Duty and a fee of 20 cents at the time of delivering the parcel.

24. The importation of Opium, Arms, Powder, Explosives and the like, as well as materials used in the manufacture of the same, by Post is forbidden. In special cases the Government can grant an exception.

VIII.—Tank Kerosene Oil.

25. The Customs procedure for despatching tank ships, storage and valuation of Kerosene Oil will be in accordance with the procedure in force at the Maritime Custom Houses at the Treaty ports.

IX.—Office Hours of the Custom House.

26. The Custom House is open for the receipt and issue of all Customs papers from 10 a.m. to 4 p.m. on all days, Sundays and holidays excepted. The Customs Bank is open on all week days from 9-12 a.m. and 2-4 p.m.

27. Vessels wishing to load or discharge on Sundays or holidays, as well as during night hours, must take out a Special Permit from the Customs; this Permit must be applied for during office hours.

28. The transport of goods over land and sea boundary of the free area during night hours is only allowed in case a Special Permit has been obtained from the Customs. This does not apply to mail matter and passengers' luggage.

29. Night hours are:—

From 1st March to 1st October; from 8 p.m. to 5 a.m.

From 1st November to 28/29 February; from 6 p.m. to 6 a.m.

X.—Fines.

30. Confiscation and fines will be imposed according to the principles which are laid down by the Treaties and which are in force at the Maritime Customs Houses. In cases of appeal against confiscation and fine imposed by the Commissioner of Customs, the procedure will be conducted in accordance with the spirit of the "Rules for Joint Investigation in Cases of Confiscation and Fine by the Custom House Authorities. Peking, 31st May, 1898."

XI.—Abrogation of Former Regulations.

31. This Ordinance, issued to carry out the terms of the Agreement made on 17th April, 1899 and of the Amendment to same made under its 20th paragraph on the 1st December, 1905, and accepted by the Chinese Custom authorities, will come into force on 1st January, 1906, and will take the place of the following Regulations, which are hereby rescinded:—

(a) The Provisional Customs Regulations for the German Territory of Kiaochow, of 23rd May, 1899.

(b) The Special Regulations for the Importation and Control of Opium, etc., of 23rd May, 1899.

(c) The Special Regulations re the Execution of the Customs Control, of 23rd May, 1899.

(d) The Provisional Additional Regulation to the Provisional Customs Regulations concerning Goods loaded by the Shantung Railway, of 20th April, 1901.

(e) The Customs Notification No. 24 regarding the Goods loaded by the Railway, of 31st March, 1902.

Tsingtau, 2nd December, 1905.

The Colonial Governor p.t.,

(Signed) Van SEMMERN.

THE OPEN DOOR DECLARATION

MR. HAY, AMERICAN SECRETARY OF STATE, TO MR. WHITE, AMERICAN AMBASSADOR TO GERMANY.

Department of State,
Washington, September 6, 1899.

Sir: At the time when the Government of the United States was informed by that of Germany that it had leased from His Majesty the Emperor of China the port of Kiaochou and the adjacent territory in the province of Shantung, assurances were given to the Ambassador of the United States at Berlin by the Imperial German Minister for Foreign Affairs that the rights and privileges insured by treaties with China to citizens of the United States would not thereby suffer or be in anywise impaired within the area over which Germany had thus obtained control.

More recently, however, the British Government recognized by a formal agreement with Germany the exclusive right of the latter country to enjoy in said leased area and the contiguous "sphere of influence or interest" certain privileges, more especially those relating to railroads and mining enterprises; but, as the exact nature and extent of the rights thus recognized have not been clearly defined, it is possible that serious conflicts of interests may at any time arise, not only between British and German subjects within said area, but that the interests of our citizens may also be jeopardized thereby.

Earnestly desirous to remove any cause of irritation and to insure at the same time to the commerce of all nations in China the undoubted benefits which should accrue from a formal recognition by the various Powers claiming "spheres of interest" that they shall enjoy perfect equality of treatment for their commerce and navigation within such "spheres," the Government of the United States would be pleased to see His German Majesty's Government give formal assurances, and lend its co-operation in securing like assurances from the other interested Powers, that each within its respective sphere of whatever influence—

First. Will in no way interfere with any treaty port or any vested interest within any so-called "sphere of interest" or leased territory it may have in China.

Second. That the Chinese treaty tariff of the time being shall apply to all merchandise landed or shipped to all such ports as are within said "sphere of interest" (unless they be "free ports"), no matter to what nationality it may belong, and that duties so leviable shall be collected by the Chinese Government.

Third. That it will levy no higher harbor dues on vessels of another nationality frequenting any port in such "sphere" than shall be levied on vessels of its own nationality, and no higher railroad charges over lines built, controlled, or operated within its "sphere" on merchandise belonging to citizens or subjects of other nationalities transported through such "sphere" than shall be levied on similar merchandise belonging to its own nationals transported over equal distances.

The liberal policy pursued by His Imperial German Majesty in declaring Kiaochou a free port and in aiding the Chinese Government in the establishment there of a custom-house are so clearly in line with the proposition which this Government is anxious to see recognized that it entertains the strongest hope that Germany will give its acceptance and hearty support.

The recent Ukase of His Majesty the Emperor of Russia declaring the port of Ta-lien-wan open during the whole of the lease under which it is held from China to the merchant ships of all nations, coupled with the categorical assurances made to this Government by His Imperial Majesty's representative at this capital at the time, and since repeated to me by the present Russian Ambassador, seem to insure the support of the Emperor to the proposed measure. Our Ambassador at the Court of St. Petersburg has in consequence been instructed to submit it to the Russian Government and to request their early consideration of it. A copy of my instruction on the subject to Mr. Tower is herewith enclosed for your confidential information.

The commercial interests of Great Britain and Japan will be so clearly served by the desired declaration of intentions, and the views of the Governments of these countries as to the desirability of the adoption of measures insuring the benefits of equality of treatment of all foreign trade throughout China are so similar to those entertained by the United States, that their acceptance of the proposition herein outlined and their co-operation in advocating their adoption by the other Powers can be confidently expected. I enclose herewith copy of the instruction which I have sent to Mr. Choate on the subject.

In view of the present favorable conditions, you are instructed to submit the above considerations to His Imperial German Majesty's Minister for Foreign Affairs, and to request his early consideration of the subject.

Copy of this instruction is sent to our Ambassadors at London and at St. Petersburg for their information.

I have, etc.

JOHN HAY.

COUNT VON BULOW, HIS IMPERIAL GERMAN MAJESTY'S MINISTER FOR
FOREIGN AFFAIRS, TO MR. WHITE,

(TRANSLATION.)

Foreign Office,

Berlin, February 19, 1900.

Mr. Ambassador: Your Excellency informed me, in a memorandum presented on the 24th of last month, that the Government of the United States of America had received satisfactory written replies from all the Powers to which an inquiry had been addressed similar to that contained in Your Excellency's note of September 26 last, in regard to the policy of the open door in China. While referring to this, Your Excellency thereupon expressed the wish that the Imperial Government would now also give its answer in writing.

Gladly complying with this wish, I have the honour to inform Your Excellency, repeating the statements already made verbally, as follows: As recognized by the Government of the United States of America, according to Your Excellency's note referred to above, the Imperial Government has, from the beginning, not only asserted, but also practically carried out to the fullest extent, in its Chinese possessions absolute equality of treatment of all nations with regard to trade, navigation, and commerce. The Imperial Government entertains no thought of departing in the future from this principle, which at once excludes any prejudicial or disadvantageous commercial treatment of the citizens of the United States of America, so long as it is not forced to do so, on account of considerations of reciprocity, by a divergence from it by other governments. If, therefore, the other Powers interested in the industrial development of the Chinese Empire are willing to recognize the same principles, this can only be desired by the Imperial Government, which in this case upon being requested will gladly be ready to participate with the United States of America and the other Powers in an agreement made upon these lines, by which the same rights are reciprocally secured.

I avail myself, etc.

BULOW.

THE TIENTSIN-PUKOW RAILWAY AGREEMENTS

THE PRELIMINARY AGREEMENT

TIENTSIN-CHINKIANG (NOW PUKOW) RAILWAY; RATIFIED MAY 24TH, 1899.

This Preliminary Agreement relating to the construction of railways between Tientsin and Chinkiang, is made between their Excellencies Hsu and Chang; duty authorized to act on behalf of the Imperial Government of China, hereinafter called "the Imperial Directors" of the one part; and (a) the Deutsche-Asiatische-Bank; (b) the Hongkong and Shanghai Banking Corporation for themselves and on behalf of Messrs. Jardine, Matheson & Co., as joint agents for the British and Chinese Corporation Limited, hereinafter called "the Syndicate" of the other part.

1. The Imperial Government of China authorizes the Syndicate to issue an Imperial Government 5 per cent. gold loan for an amount of about £7,400,000, this amount being subject to modification later after the completion of survey.

2. The loan is designed to provide the capital for the construction of Government railway lines from a point at or near Tientsin, through Titchow and Tsianfu to Thsien near the southern frontier of Shantung, hereinafter known as the northern part of the Tientsin-Chinkiang Railway lines, and from Thsien to Kuachao (Chinkiang) on the Yangtze Kiang, hereinafter known as the southern part of the Tientsin-Chinkiang Railway lines, the total length of these lines being about 982 kilom., equal to about 1,800 Chinese li.

3. The capital so provided will include the funds required for rolling-stock and other equipment, and for working the lines, together with interest on the loan during the period of construction, which is estimated to occupy about five years from the date of the loan, but which will finally be fixed after survey.

4. The rate of interest for the loan shall be 5 per cent. per annum on the nominal principal, and shall be paid during the time to be fixed for the construction out of the proceeds of the loan, and afterwards out of the revenue of the lines named, in half-yearly instalments, according to the amounts and dates of a schedule which will be attached to the Final Agreement.

5. The term of the loan shall be fifty years. Repayment of principal shall commence in the eleventh year from the date of the loan, and shall be made by a yearly sinking fund in shares to be determined in the Final Agreement to the Deutsche-Asiatische Bank, and the Hongkong and Shanghai Banking Corporation in yearly instalments out of the revenue of the lines according to the amounts and dates of the schedule to be attached to the Final Agreement.

6. In the event of the Imperial Government of China wishing to redeem, after the lapse of thirty years from the date of the loan, the outstanding amount of the loan, or any portion of it not yet due, from funds *bona fide* belonging to the Chinese Government or subscribed by Chinese merchants, the conditions for such redemption must first be arranged with the Syndicate when the time arrives.

7. The yearly payments due for amortization and the half-yearly payments due for interest, except as otherwise provided in Clause 4, shall be made in accordance with the amounts and dates of a schedule to be attached to the Final Agreement, in shares to be determined by the Final Agreement, out of the joint net revenues of the railway lines to the Deutsche-Asiatische Bank and the Hongkong and Shanghai Banking Corporation by the Boards of Commissioners hereinafter mentioned, who shall hand to those banks, at their branches in Shanghai, twenty-one days before the due date named in the schedule, funds in Shanghai sycee sufficient to meet such payment in sterling in Europe, the rate of exchange for which shall be settled with those two banks on the same day on a fair basis.

In reimbursement of expense connected with the service of interest and principal of the loan, the two banks will receive a commission of 1 per cent. on the annual loan service.

8. The Imperial Government of China hereby engages that the interest and principal of this loan shall duly be paid in full, and should the revenues of the railways not be sufficient to provide for the due and full payment of interest and repayment of principal of this loan the Imperial Directors must memorialize the Throne, and the Imperial Government of China will then make arrangements to ensure that the amount of deficiency shall be met from other sources and handed over to the banks twenty-one days before the due date of the funds required to complete full payment of interest and repayment of principal.

This clause to be open to reconsideration in the Final Agreement.

9. This entire loan shall be secured by a first mortgage on the permanent way, rolling-stock, and entire property, together with the revenue of the lines named in Clause 2. No further loan, charge, or mortgage shall be charged on this security, except with the written consent of the two banks, until the present loan is returned. In the event of default in payment of interest or repayment of principal of this loan on due date the railway lines and property so mortgaged shall be handed over to the Syndicate, to be dealt with in such a manner as may be legal and

necessary for the full and effective protection of the bondholders. When the loan is completely redeemed, Clause 29 of this Agreement shall take effect.

10. The Syndicate will be authorized to issue to the subscribers to the loan, bonds for the total amount of the loan in pounds sterling in such form, in such languages, and for such amounts as shall appear advisable to the Syndicate, and these bonds shall be sealed in China by the Imperial Directors and in Europe by the Minister for China, in Berlin or London, as evidence that the Imperial Government of China is bound thereby as debtor of the loan. Provision will be made in the Final Agreement for the case of bonds lost, stolen, or destroyed.

11. All bonds and coupons and payments made and received in connection with the service of this loan shall be exempt from all Chinese taxes and imports for ever.

12. All details necessary for the prospectus and connected with the service of the interest and repayment of the principal of this loan, not explicitly provided for by the Final Agreement, shall be left to the arrangement of the Syndicate, who will be authorized to issue a prospectus of the loan as soon as possible after the signing of the Final Agreement.

The Imperial Government of China will instruct the Chinese Ministers in Berlin and London to co-operate with the representatives of the Syndicate in any matters requiring conjoint action, and the Chinese Minister in Berlin will sign the prospectus of the loan as required by the Rules of the Berlin Stock Exchange.

13. The loan shall be floated in one or more series at the discretion of the Syndicate, due regard being had to the interest of China; but the floating of the loan shall not be delayed more than necessary, subscriptions being invited by the Syndicate in Europe and in China from both European and Chinese on equal conditions.

14. The price of the loan shall be 90 per cent net on the nominal principal to the Chinese Government. The proceeds of the loan shall be paid to the credit of a Tientsin-Chinkiang Imperial Government Railway account with the Hongkong and Shanghai Banking Corporation, London. The payment into the credit of these accounts shall be made in such instalments and on such dates as the conditions allowed to the subscribers to the loan shall admit.

Interest at a rate to be arranged from time to time shall be granted on the credit balance of the railway accounts.

After deduction of the funds required for the service of interest and for commission on this service during the time of construction, the Deutsche-Asiatische Bank will hold the proceeds with accrued interest to the order of the Board of Commissioners appointed for the northern part of the Tientsin-Chinkiang Railway lines, and the Hongkong and Shanghai Banking Corporation will hold the proceeds with accrued interest to the order of the Board of Commissioners appointed for the southern part of the Tientsin-Chinkiang Railway lines. The Commissioners, in drawing the sums necessary for the construction, shall give notice to the banks fourteen days before the day on which they are required.

15. If during the time of construction the whole amount of the instalments with accrued interest to be paid by the Syndicate should, after deduction of the sums necessary for the service of interest on the loan, not be sufficient for the construction of the railway lines, the amount of deficiency shall be provided by a supplementary loan to be issued by the Syndicate, the interest and other conditions of which are to be the same as in this Agreement, but the price must be arranged when the time arrives.

If after the completion of the lines there should be a balance at credit of the Tientsin Chinkiang Railway account, the Syndicate shall transfer such unused balance to the credit of the loan service reserve fund, hereinafter mentioned as a provision for payments to which the Government is bound by Clause 8 of this Agreement.

16. If before the publication to the prospectus for the issue of loan any political or financial crisis should take in Europe or elsewhere, by which the markets and the prices of existing Chinese Government stocks are so affected as to render the successful issue of the loan impossible on the terms herein named, the Syndicate shall be granted such extension of time for the performance of their contract as the circumstances demand, or shall have the right to withdraw from their contract with the Chinese Imperial Government which shall in that case become null and void.

17. The Deutsche-Asiatische Bank on the one side, and the Hongkong and Shanghai Banking Corporation for themselves, and on behalf of Messrs. Jardine, Matheson & Co., as joint agents for the British and Chinese Corporation Limited, on the other side, shall take the loan in shares to be agreed upon by the Syndicate, and without responsibility for each other.

18. The northern part of the railway lines shall be constructed, equipped, and worked on behalf of the Imperial Chinese Government by

Deutsche-Asiatische Bank, and the southern part of the railway lines shall be constructed, equipped, and worked on behalf of the Imperial Chinese Government by the British and Chinese Corporation Limited, under conditions as follows:—For each of these parts a Board of Commissioners shall be appointed to superintend the construction, equipment, and working of the railway lines in accordance with regulations to be arranged between the Imperial Directors and the Deutsche-Asiatische Bank and the British and Chinese Corporation Limited.

19. An office shall be provided for the Imperial Directorate, and a head office shall be established for each Board of Commissioners. The Board of Commissioners for the northern and southern parts of the lines respectively, appointed to superintend the construction and administration, shall each consist of five members, two Chinese managers representing the Imperial Directors and nominated by them, and three European members, namely, a representative of the Bank concerned, the manager and the Chief Engineer, to be nominated by the Deutsche-Asiatische Bank, and the British and Chinese Corporation Limited.

In case any foreign or Chinese members of the Boards of Commissioners do not work well together, it shall be open to the Imperial Directors, the Deutsche-Asiatische Bank, and the British and Chinese Corporation Limited, to mutually discuss means to arrange and deal with the matter.

The foreign and Chinese railway staff, including a *Ti-tiao*, shall be appointed by the Boards of Commissioners, who will report the appointment to the Imperial Directors. In the event of an important appointment the two Chinese members of the Boards may first consult the Imperial Directors.

The principal members of the railway staff shall be capable and experienced Europeans, but Chinese with sufficient experience in engineering or traffic may also be appointed.

Foreign and Chinese members of the railway staff shall, in the event of incapacity or misconduct, be dismissed by the Boards of Commissioners who will inform the Imperial Directors of the same.

The salaries of the five members of each Board of Commissioners and of the foreign and Chinese railway staff shall be arranged by the Deutsche-Asiatische Bank, the British and Chinese Corporation Limited, and the Imperial Directors, and paid by the head office of their respective sections.

20. The plans, estimates, and all matters relating to survey must be submitted for approbation to the Board of Commissioners. The Chief Engineer shall indicate to the Chinese Commissioners the land which it is necessary to purchase, and which must be sufficient for the construction of a permanent way with double lines and dependencies, and the Chinese Commissioners shall thereupon effect such purchases at a price to be based on a scale to be arranged after survey. In the event of the route proposed by the Chief Engineer passing through towns, villages, graveyards, or other points where much obstruction is encountered, the Chief Engineer will, together with the Board of Commissioners, consider means of diverting the proposed railway route in order to avoid difficulties.

21. After completion of the survey and due inquiry as to the prevailing provincial *likin* and customs dues, the Imperial Directors will arrange with the Deutsche-Asiatische Bank and the British and Chinese Corporation Limited, regulations for the payment of *likin* and duty upon merchandise and live stock in transit over the railway lines.

22. All materials necessary for the construction and working of the lines, obtained either from foreign countries or from other provinces of China, and the revenues derived from the railway, shall be exempt from duty of taxation of all kinds, and the Imperial Government of China will instruct the customs and *likin* authorities accordingly.

All material, plant, and goods shall be ordered from the Deutsche-Asiatische Bank and the British and Chinese Corporation Limited, on conditions to be arranged in the Final Agreement.

The plans, estimates, and requisitions for material shall be submitted to the Board of Commissioners by the Chief Engineer for reference at their discretion to the Imperial Directors, and the same shall be furnished by the Deutsche-Asiatische Bank and the British and Chinese Corporation on the best possible terms.

Due consideration will be extended to materials from the Hanyang Iron Works, if available when required, and of a quality satisfactory to the Chief Engineers of the Syndicate.

23. The Deutsche-Asiatische Bank and the British and Chinese Corporation Limited shall, during the working of the lines, maintain the railways, buildings, works, rolling-stock and dependencies in good order and condition.

24. Branch lines or extension in connection with the Tientsin-Chinkiang Railway lines that may appear profitable or necessary later on shall be the subject of negotiations between the Imperial Directors and the Syndicate.

25. The tariff to be introduced by the European Manager shall be approved by the Boards of Commissioners, who will take into consideration the tariffs of other existing railway lines in China, while keeping in view the necessity for attracting traffic. The European Manager may also be instructed to enter into arrangements for tariffs on through traffic connecting lines. In case of war, foreign or internal, the railway lines shall be reserved in the first instance for the transport of Chinese troops, commissariat, and munitions of war under the order of Imperial Directors, and

at half the ordinary tariff rates, and the railways shall not engage in any service injurious to China. In case of famine, grain will also be transported over the lines at half the ordinary tariff rate, under orders of the Imperial Directors.

26. All payments made and received in connection with the railway lines will be subject to the control of the Boards of Commissioners, and after the line is working estimates of receipts and expenditure shall be similarly submitted to the Boards. Regular accounts shall be furnished through the Imperial Directors to the Railway and Mining Bureau of the Tsung-li Yamen and the Board of Revenue, Peking. All payments made must be represented by Chinese or foreign vouchers as the case may be.

27. The profits from working completed sections of the railways during the time of construction shall be credited to railway construction account.

28. Should any traffic business be apparent later on as likely to benefit the Imperial Government of China and increase the earning power of the railway lines, the Deutsche-Asiatische Bank and the British and Chinese Corporation Limited shall represent the same to the Imperial Directors, and request them to obtain the necessary authority to arrange the business.

29. The Deutsche-Asiatische Bank and the British and Chinese Corporation Limited shall work the lines on behalf of the Imperial Government of China until the present loan is redeemed. As soon as the loan has been completely redeemed this Agreement shall become null and void, and the railway lines and property named in this Agreement shall be handed over to the absolute disposal of the Chinese Government.

30. The annual net revenue is understood to be that resulting from the gross receipts of the passengers and goods traffic and the income from other sources, after deducting all working expenses, including maintenance of the permanent way, repairs and renovation of machinery and rolling-stock, and all expenses of administration, besides deducting an amount to be determined by the Deutsche-Asiatische Bank and the British and Chinese Corporation Limited as sufficient for accumulating a reserve fund for extraordinary improvements or repairs. Of the surplus of the joint net annual revenue of the northern and southern railway lines, after payments of interest and repayment of principal of the loan, first, a participation of 20 per cent. will be granted to the Syndicate in remuneration for their management of the construction and the working of the railway lines; secondly, an amount equal to 10 per cent. of the gross earnings will be transferred to a loan service reserve fund, deposited with the two banks, and the remainder will be at the disposal of the Imperial Government of China. An account of the said loan service fund will be rendered yearly to the Railway and Mining Bureau of the Tsung-li Yamen and to the Board of Revenue, and the fund will be drawn upon only in the case of the revenue of the railway line being insufficient to meet the service of interest and principal of the loan. On redemption of the loan being completed the balance of this fund will revert to the Chinese Government.

31. The powers and authority given and delegated to the Imperial Directors by the Imperial Government of China shall, in the case of their promotion or removal, be transferred to their successors, and the Deutsche-Asiatische Banks and the Hongkong and Shanghai Banking Corporation, Messrs. Jardine, Matheson & Co., and the British and Chinese Corporation Limited, may, subject to all their obligations, transfer or delegate all or any of their rights, powers, and discretions to any German or English Company, director, or agents, with or without power of further transfer and sub-delegation.

32. Differences arising between the Imperial Directors and the Syndicate will be taken up and decided with equity and justice by the Tsung-li Yamen on the one side, and the Minister for Germany and the Minister for Great Britain in China on the other side.

33. As soon as possible after the signature of this Agreement the Engineers of the Syndicate will be authorized by the Imperial Chinese Government to survey and report upon the proposed railway lines, when subject to such report being satisfactory to the Syndicate, this Preliminary Agreement will be ratified by the Syndicate and replaced by a Final Agreement containing all necessary details. Modifications in the conditions of this Preliminary Agreement may be made, subject to the consent of both parties.

34. The provisions of this Preliminary Agreement shall, immediately after signature, be ratified by an Imperial Edict (*) which shall be communicated by the Tsung-li Yamen to the Ministers for Germany and Great Britain in Peking.

35. Five sets of this Agreement are executed in English and Chinese, one set to be retained by the Tsung-li Yamen, one by the Railway and Mining Bureau, and one by each Contracting Party.

In the event of any doubt arising regarding the interpretation of the Contract, the English text shall rule.

(*) The Edict was issued on the 24th May, 1899 vide Blue Book, China, No. 1 of 1900, p. 190.

THE FINAL TIENTSIN-PUKOW RAILWAY LOAN AGREEMENT

JANUARY 13, 1908

The following is a translation of the Agreement between the British and Chinese Corporation Ltd. and the Wai Wu Pu signed in Peking on Jan. 13, 1908, or the tenth day, twelfth moon, thirty-third year of Kwang Hsu:—

1.—The Chinese Government hereby sanctions the German and British Banks Syndicate issuing a loan for five million sterling, £5,000,000, at 5% which shall be styled the "Chinese Government five per cent Tientsin-Pukow railway loan."

2.—This loan is to furnish the capital wherewith to construct a Government railway from the vicinity of Tientsin to connect the existing Peking-Shanhaikwan line via Techow, Chinanfu to Ihsien along the southern boundary of Shantung, and this line will hereafter be known as the northern section of the Tsin-Pu or Tientsin-Pukow line; and from Ihsien to Pukow on the bank of the Yangtze opposite Nanking which shall hereafter be known as the southern section of the Tsin-Pu railway. The total distance of the two sections is 1085 kilometers or equal to 2,170 Chinese li. The survey of the line will be subject to revision by the Director General.

3.—The capital will be used for the construction of the line, the purchase of the land and rolling stock, and to meet the current working expenses of the line when in operation, also the payment of the interest on the loan while the line is being constructed. The period of construction calculating from the date of commencement is estimated as four years, such commencement to take place within six months of the signing of the agreement, and within this period the syndicate shall place £500,000 at the disposal of the Director General, the money to be drawn by him either in China or from Europe as a first instalment of the loan. The whole or part of this £500,000 shall be deducted with interest from the proceeds of the first sale of the bonds and bear interest not exceeding 6%.

4.—The interest of the loan, which is 5%, shall be payable from the date of issue of the loan and during the time of construction, payable half-yearly. It will be paid by the Chinese Government either from the proceeds of the loan or from other sources as considered advisable.

5.—The loan is made for a term of 30 years, the repayment to commence at the end of ten years, and with the exceptions noted in Art. 6 of this agreement the amortisation to the banks concerned, Deutsch Asiatische Bank, and Hongkong and Shanghai Corporation, Ltd., shall be made in half-yearly instalments out of the revenue of the line or from such other source as the Chinese Government may decide, payment being made in all cases 14 days previous to the date due calculated from the date of issue.

6.—After the expiration of ten years the Chinese Government may if it so desire redeem the outstanding amount of the loan or any part of it any time before the twentieth year on the payment of a premium of $2\frac{1}{2}\%$, or £102 10s. on every £100 bond. After the twentieth year redemption can be made without premium, but in any case six months' notice must be given by the Chinese Government, and the method of redemption shall be by the drawing of additional bonds at each ordinary drawing.

7.—The Deutsch Asiatische Bank and the Hongkong and Shanghai Banking Corporation having been appointed representatives for the loan by the British and German companies to receive the half-yearly payments due for amortisation and interest, referred to in Articles 4 and 5, they shall be made, in accordance with the amounts and dates attached to this agreement by the Director General of the Railway, in Shanghai or in Tientsin, in Shanghai or Tientsin suffice sufficient to meet such payments in gold in Europe, exchange for which shall be settled with the said Banks on the same day. The railway administration may arrange exchange within six months previous to any due date for the repayment of interest and principal. Payment can be made in gold if the Chinese Government have gold funds in Europe, not remitted from China for the purpose, and desire so to use them.

The Hongkong and Shanghai Banking Corporation and Deutsch Asiatische Bank will receive a commission of one quarter per cent for their expenses as Agents.

8.—The Imperial Government of China engages that the interest and principal of this loan shall duly be paid in full, and if the revenue of the Railway or the proceeds of the loan do not suffice for full payment, the Director General shall memorialise the Throne on the amount of deficiency and make payment to the Banks on the date upon which funds are required.

9.—The loan is secured in the following manner:—

1. By likin and internal revenues of the province of Chihli, 1,200,000 Haikuan Taels a year:

2. By likin and internal revenues of the province of Shantung 1,600,000 Haikuan Taels a year, and

3. By the revenue of the Nanking Likin Collectorate 900,000 Haikuan Taels a year and of the Huai-an Native Customs 100,000 Haikuan Taels a year in the province of Kiangsu.

The provincial revenues as above are declared free from all other loans, charges or mortgages.

So long as principal and interest of the loan are regularly paid, there shall be no interference with these provincial revenues. If principal or interest of the loan be in default at due date, then, after a reasonable postponement internal revenues of the three provinces sufficient to provide

the amounts above stated shall forthwith be transferred to, and be administered by, the Imperial Maritime Customs, in the interest of the bondholders. And so long as this loan or any part thereof shall remain unredeemed, it shall have first claim over all future loans, on the above mentioned revenues of the three provinces. It is understood and agreed that so long as this loan is unredeemed the Railway shall under no circumstances be mortgaged nor its earnings given as security to any other object.

Should the Government decide to revise the Customs tariff with the view of abolishing likin, this agreement will not oppose such revision except that the likin required as security for the loan must not be decreased or abolished without previous arrangement with the Syndicate and after other source of revenue has been guaranteed.

10.—The Syndicate is authorized to issue bonds for the total amount of the loan and the form of the bonds shall be arranged in consultation with the Director General or the Chinese Ministers in London and Berlin. The bonds shall be printed in Chinese and English or Chinese and German and be signed by stamp of the Director General and his seal, the Chinese Minister in London or Berlin shall also put his seal upon each bond with his signature, as a proof that the sale of the bonds is authorized by, and is binding upon the Chinese Government. The representatives of the Syndicate in London and Berlin shall countersign the bonds as agents.

In the event of bonds being lost, or destroyed, the Syndicate shall notify the Director General and the Chinese Minister in London and Berlin, who shall authorize the Syndicate to insert an advertisement in the public newspapers notifying that payment of the same has been stopped according to the customs of the country concerned, and if the bonds are not recovered, the Director General, or the Chinese Minister in London or Berlin, shall issue duplicate bonds.

11.—All bonds and payments made and received in connection with the service of this loan shall be exempt from all Chinese taxes and imposts during the currency of this loan.

12.—The Syndicate is authorized to issue the regulations of the loan as soon as possible after the signing of this agreement, and the Chinese Government will instruct the Chinese Ministers in London and Berlin to assist the Syndicate in any matters connected therewith and to sign the regulations of the loan.

13.—The loan will be issued in two or more instalments of bonds, the first issue of £3,000,000, as soon as possible after the signing of this agreement and not later than twelve months from the date. The price to the Imperial Chinese Government of the first instalment shall be ninety-three per cent of the face value. Further issues shall be effected in time to prevent any delay of the work of construction, in amounts to be determined by the Director General, and the price payable to the Chinese Government in respect of these series shall be the same rate as to the public, less charges of $5\frac{1}{2}$ points by the Syndicate. Subscriptions will be invited by the Syndicate in Europe and in China both from Chinese and Europeans on equal conditions, preference being given to the application of the Chinese Government if application is made before the issue of the regulations.

14.—The income of the loan shall be paid to the account of Tientsin-Pukow Government Railway with the Hongkong and Shanghai Banking Corporation and the Deutsch Asiatische Bank in China, London or Berlin, as the case may be. Interest at the rate of 4% shall be granted on the portion of this account kept in London and Berlin, and interest on the portion kept in China will be allowed at the Banks' rates for current account or fixed deposits, as may be arranged. In addition to interest and commission the Banks will hold the funds for the Director General, who shall not draw more than £20,000 without giving the Banks ten days' notice. Expenditure of funds shall be in amounts to suit the progress of construction of the railway by orders on the Hongkong and Shanghai Banking Corporation and the Deutsch Asiatische Bank respectively, signed by the Managing Director of the Railway or, in his absence, by his representative, and accompanied by his certificates stating the nature and cost of the work to be paid for.

Such amounts as may be required in China may at any time be transferred by the Managing Director, at his discretion, to Shanghai, the transfers being effected through the Hongkong and Shanghai Banking Corporation and the Deutsch Asiatische Bank respectively, and the transferred funds shall remain on deposit with those Banks until required for Railway purposes.

The accounts of the Railway will be kept in Chinese and English in accordance with modern methods, and will be supported by all necessary vouchers. During the period of construction the accounts will be open at any time to an inspector appointed and paid by the Syndicate. His duty will be to certify the due expenditure of the funds in accordance with the provisions of Article 3 of this Agreement. The Railway Administration will publish annually at the end of the financial year a report in Chinese and English of the working accounts and receipts of the railway, which report may be purchased by the public on application.

15.—If during the time of construction the proceeds of the present loan should not be sufficient to complete the construction and equipment of the line, the deficiency shall be provided, in the first place, from such

Chinese funds as may be available so as to permit continuance of the work, any balance then uncovered being supplemented by a further foreign loan for the amount required, to be issued by the Syndicate. The interest and other conditions of such supplementary loan will be the same as in the present agreement. If after the completion of the line there should be a balance at credit of the railway account, such unused balance will be transferred to the credit of the interest reserve fund mentioned in Article 21 as a provision for payments for which the Imperial Chinese Government is responsible under this agreement.

16.—If, before the first sale of the bonds, any political or financial event should take place causing the price of Government stocks to fall so as to make the successful issue of the loan impossible on the terms named, the Syndicate shall be granted further extension of time, but not beyond eighteen months from the date of this agreement. If within this time limit the first bonds have not been issued, then this contract shall become null and the money paid by the Syndicate under the provisions of Article 3 shall be by the Chinese Government with interest, but without any other compensation or remuneration whatsoever.

17.—The construction and control of the railway will be entirely in the hands of the Imperial Chinese Government. For the work of the northern and southern sections respectively the Chinese Government will select and appoint fully qualified German and British Chief Engineers, acceptable to the Syndicate. These two Chief Engineers shall be under the orders of the Managing Director, or his duly authorized representative, and will carry out all the wishes of the Railway Administration with regard to the plan and construction of the line. They must pay all due respect to the Director General and the Managing Director. The terms of their respective agreements will be arranged by the Director General on his sole authority.

On the completion of the line the Imperial Chinese Government will administer both sections as one undivided Government Railway and will appoint an Engineer-in-Chief, who during the period of the loan shall be a European, without reference to the Syndicate.

18.—For all important purchases of railway materials tenders shall be called for by the Managing Director; and the Banks and Syndicate as Agents shall purchase the materials required on the terms most advantageous to the Railway, and shall charge the original cost of same with a commission of five per cent. It is understood that no orders for materials shall be executed or any expenditure incurred without due authorization by the Managing Director.

The Railway Administration shall have the right to reject on arrival in China materials which do not come up to specifications. At equal rates and qualities goods of German and British manufacture shall be given preference over other goods of foreign origin for the northern and

southern sections respectively. The Railways Administration reserves the right, while paying the above stipulated commission to the said Agents in respect of all purchases of foreign materials, to avail itself of the services of other Agents in China or abroad should it see fit to do so.

No commission shall be paid to the Agents except as above provided; but it is understood that the Railway Administration shall provide out of Railway funds for the remuneration of Consulting Engineers whenever their services are engaged.

With a view to the encouragement of Chinese industries, preference will be given, at equal prices and qualities, over British, German or other foreign goods to Chinese materials, and goods manufactured in China. No commission will be paid on purchases of such materials and goods.

19.—Branch lines in connection with the railway line mentioned in this Agreement may be built by the Imperial Chinese Government with funds at their disposal from Chinese sources, if thought advisable, and if foreign capital is required preference will be given to the Syndicate.

20.—The Syndicate is granted the right to retain two hundred thousand pounds sterling (£200,000) out of the first issue of the bonds instead of 20% of the profits of the railway as first proposed. No further payment in respect of profits will be allowed on any subsequent series of the loan, or on any supplementary loan.

21.—After payment of interest and repayment of principal of the loan for any year, the Railway Administration will deposit with the Deutsch Asiatische Bank and the Hongkong and Shanghai Banking Corporation in Shanghai or Tientsin any surplus revenue of the railway line for that year up to the amount required to pay the following year's instalments of interest on the loan; the rate of interest on the deposit being arranged with the Banks from time to time with due regard to the conditions of the market.

22.—The Deutsch Asiatische Bank and the Syndicate may transfer or delegate all or any of their rights, powers, and discretions thereunder to any German or British Company, Directors or Agents with power of further transfer subject to the approval of the Director General.

23.—This Agreement is signed under authority of an Imperial Edict dated the tenth day of the Twelfth Moon of the 33rd year of Kuang Hsu, corresponding to the 13th day of January one thousand nine hundred and eight, Western Calendar, which has been officially communicated to the Ministers of Great Britain and Germany in Peking by the Wai Wu Pu.

24.—Five sets of this Agreement are executed in English and Chinese three sets to be retained by the Imperial Chinese Government and two by the Syndicate. In any case of dispute the English text will be taken as correct.

TIENTSIN-PUKOW RAILWAY SUPPLEMENTARY LOAN AGREEMENT

SEPTEMBER 28, 1910.

Whereas by an agreement made at Peking on the 10th day of the 12th month of the 33rd year of Kuang Hsu corresponding to the 13th day of January 1908, between

His Excellency Liung Tun Yen, Acting Junior Vice President of the Waiwupu, duly authorised to act on behalf of the Imperial Government of China,

of the one part,
and A. The Deutsch Asiatische Bank, Shanghai,
B. The Chinese Central Railways Limited, London,
thereinafter termed the Syndicate,
of the other part,

the Syndicate were authorised to issue, and did issue, a 5% Gold Loan for £5,000,000 for the construction and equipment of a line of railway from Tientsin to Pukow in the Empire of China: and WHEREAS, in order to permit of the uninterrupted continuance of the work of construction provision was made in Article 15 of the aforesaid Loan Agreement, hereinafter called the Original Loan Agreement, for the issue by the Syndicate of a Supplementary Loan of which the interest and other conditions as well as the price payable to the Chinese Government should be governed by the terms of the original loan agreement which still remains in full force and effect;

This Agreement is now made at Peking this twenty fifth day of the eighth month of the second year of Hsüan Tung, corresponding to the twenty eighth day of September 1910, between;

The Director General and Assistant Director General of the Tientsin-Pukow Railway, Their Excellencies The Grand Councillor and Assistant Grand Secretary Hsü Shih Shang, and the Acting President and Senior Vice-President of the Board of Posts and Communications Shen Yün Pei, duly authorised to act on behalf of the Imperial Government of China,

of the other part,
and A. The Deutsch Asiatische Bank, Shanghai,
B. The Chinese Central Railways Limited, London,
hereinafter called the Syndicate
of the other part,

Article 1. The Imperial Government of China authorises the Syndicate to issue a 5% Gold Loan for an amount of four million eight hundred thousand pounds sterling (£4,800,000). The loan shall be of the date on which the first series of bonds is issued to the public and shall be called "The Imperial Chinese Government 5% Tientsin-Pukow Railway Supplementary Loan."

Article 2. The loan is designed to provide further capital for the construction of a Government railway line from a point connecting the Imperial Railways of North China at or near Tientsin through Techou and Tsinanfu to Ihsien near the Southern frontier of Shantung, hereinafter known as the Northern Section of the Tientsin-Pukow Railway line, and from Ihsien to a point at or near Pukow (opposite Nanking on the Yangtze Kiang), hereinafter known as the Southern Section of the Tientsin Pukow Railway line, the total length of these two sections being about 1,085 kilometers, equal to about 2,170 Chinese li.

Article 3. The capital so provided shall be solely devoted to the construction of the Railway line including the purchase of land, rolling stock and other equipment, and to the working of the line and to the payment of interest on the loan during the period of construction, which is estimated at 2 years from the signature of this agreement.

Article 4. The rate of interest for the loan shall be 5% per annum on the nominal principal and shall be paid to the bondholders half-yearly. The said interest shall be calculated from the date on which the loan is issued to the public, and shall be paid by the Imperial Chinese Government during the time of construction either from the proceeds of the loan or from other sources, and afterwards, in the first place, out of the revenue of the Railway, and then from such other revenues as the Chinese Government may think fit to use for the purpose in half-yearly instalments according to the amounts specified in the schedule attached to this agreement and fourteen (14) days before their due dates, Western Calendar, as calculated half-yearly from the date on which the loan is issued to the public.

Article 5. The term of the loan shall be thirty (30) years. Repayment of principal shall commence after the expiry of ten (10) years from the date of the loan, and, except as provided in Article 6 hereinafter, shall

be made by yearly amortisation to the Deutsch Asiatische Bank and the Hongkong and Shanghai Banking Corporation out of the revenue of the line or such other revenues as the Chinese Government may think fit to use for the purpose, according to the amounts specified in the schedule attached to this agreement, but fourteen (14) days before their due dates, Western Calendar, as calculated from the date on which the loan is issued to the public.

Article 6. If at any time after the lapse of ten (10) years from the date of the loan the Imperial Chinese Government should desire to redeem the whole outstanding amount of the loan, or any part of it, not yet due for repayment in accordance with the schedule of repayments hereto attached, it may do so until the twentieth (20th) year, by payment of a premium of two and one-half ($2\frac{1}{2}$) per cent, on the face value of the bonds (that is to say, by payment of a hundred and two pounds and ten shillings (£102.10) for each £100 bond) and after the twentieth (20th) year without premium; but in each and every case of such extra redemption, the Imperial Chinese Government shall give six (6) months notice in writing to the Syndicate, and such redemption shall be effected by additional drawings of bonds, to take place on the date of an ordinary drawing, as provided for in the Prospectus of the Loan.

Article 7. The Deutsch Asiatische Bank and the Hongkong and Shanghai Banking Corporation having been appointed, by the German and British parties of the Syndicate, respectively, Agents for the service of the loan the payments due for amortisation and interest, referred to in Articles 4 and 5, shall be made, in accordance with the amounts of the Schedule attached to this agreement, and fourteen (14) days before their due dates as fixed by Articles 4 and 5, to these Banks by the Director General of the Railway, who shall hand to the said Banks in Shanghai or in Tientsin fourteen (14) days before the said due dates, funds in Shanghai or Tientsin Sycee sufficient to meet such payments in Gold in Europe, exchange for which shall be settled with the said Banks on the same day, the Railway Administration having however, the option of settling exchange with the two Banks at any date or dates within six (6) months previous to any due date for the repayment of interest and principal. These payments may, however, be made in Gold if the Imperial Chinese Government should happen to have Gold funds "bona fide" at their disposal in Europe not remitted from China for the purpose and desire so to use them.

In re-imbursement of expenses connected with the payment of interest and the repayment of principal of the loan, the Hongkong and Shanghai Banking Corporation and the Deutsch Asiatische Bank will receive a commission of one-quarter ($\frac{1}{4}$) per cent on the annual loan service.

Article 8. The Imperial Government of China hereby engages that the interest and principal of this loan shall duly be paid in full, and should the revenue of the Railway and/or the proceeds of the loan not be sufficient to provide for the due and full payment of interest and repayment of principal, the Director General shall memorialise the Throne and the Imperial Government of China will thereupon make arrangements to ensure that the amount of deficiency shall be met from other sources and handed over to the Banks on the date upon which funds are required, to complete full payment of interest and repayment of principal.

Article 9. The loan is hereby secured:—

1. By a second charge on the likin and internal revenues of the three provinces enumerated in Article 9 of the Original Tientsin Pukow Railway Loan Agreement amounting to Haikuan Tls. 3,800,000 a year, after satisfaction of all the obligations contained in the said Article.

2. By a first charge on the following additional revenues, calculated on the basis of the maximum annual payments of principal and interest due:—

- A. Likin and internal revenues of the Province of Chihli to the amount of Haikuan Tls. 1,000,000 a year;
- B. Likin and internal revenues of the Province of Shantung to the amount of Haikuan Tls. 1,200,000 a year;
- C. Revenue of the Nanking Likin Collectorate [to the amount of Haikuan Tls. 600,000 a year] and of the Huai-an Native Customs [to the amount of Haikuan Tls. 100,000 a year] in the Province of Kiangsu;
- D. Likin and internal revenues of the Province of Anhui to the amount of Haikuan Tls. 700,000 a year.

With the exception of the first charge created by the Original Loan Agreement the Provincial revenues as above stated are hereby declared to be free from all other loans, charges or mortgages.

So long as principal and interest of the loan are regularly paid, there shall be no interference with these provincial revenues, but if principal or interest of the loan be in default at due date, then, after a reasonable period of grace, likin and suitable internal revenues of the four provinces sufficient to provide the amount above stated shall forthwith be transferred to, and be administered by, the Imperial Maritime Customs, in the interest of the bondholders. And so long as this loan or any part thereof shall remain unredeemed, it shall have priority both as regards principal and interest, subject to the obligations created by Article 9 of the original loan agreement over all future loans, charges and mortgages charged on the above-mentioned revenues of the four provinces.

No loan, charge or mortgage shall be raised or created which shall take precedence of, or be on equality with this loan, or which shall in any manner lessen or impair its security over the revenues of the four provinces as above stated; and any future loan, charge or mortgage charged on the said revenues of the four provinces shall be made subject to this loan, and it shall be so expressed in every agreement for every such future loan, charge or mortgage. It is understood and agreed that

so long as this loan is unredeemed the Railway shall under no circumstances be mortgaged nor its receipts given as security to any other party.

In the event of the Chinese Government, during the currency of this loan entering upon definite arrangements for the revision of Customs Tariff accompanied by stipulations for decrease or abolition of likin, it is hereby agreed, on the one hand, that such revision shall not be barred by the fact that this loan is secured by likin and provincial revenues, and, on the other hand, that whatever likin is required to provide the security of this loan shall neither be decreased nor abolished except by previous arrangement with the Syndicate and then only in so far as an equivalent is substituted for it in the shape of a first charge upon the increase of Customs Revenue consequent upon such revision.

Article 10. The Syndicate is hereby authorised to issue to subscribers to the loan, Bonds for the total amount of the loan for such amounts as may appear advisable to the Syndicate. The form of the Bonds shall be settled by the Syndicate in consultation with the Director General or the Chinese Ministers in London and Berlin. The Bonds shall be engraved in Chinese and English or Chinese and German as may be required; they shall bear the facsimile of the signature of the Director General and of his seal of Office, in order to dispense with the necessity of signing them all in person: and it is hereby agreed that the Chinese Minister in London shall, previous to the issue of any Bonds, put his seal upon each Bond with a facsimile of his signature, as a proof that the issue and sale of the Bonds are duly authorised by, and binding upon, the Imperial Chinese Government, and the representatives of the Syndicate in London shall countersign the bonds as Agents for the issue of the loan.

In the event of bonds issued for this loan being lost, stolen or destroyed, the Syndicate shall immediately notify the Director General and the Chinese Minister in London and/or Berlin, as the case requires, who shall authorise the Syndicate to insert advertisement in the public newspapers notifying that payment of the same has been stopped and to take such other steps as may appear advisable or necessary according to the laws and customs of the country concerned, and should such bonds not be recovered after a lapse of time to be fixed by the Syndicate, the Director General or the Chinese Minister in London, shall seal and execute duplicate bonds for a like amount and hand them to the Syndicate, by whom all expenses in connection therewith shall be defrayed.

Article 11. All bonds and coupons and payments made and received in connection with the service of this loan shall be exempt from all Chinese taxes and imposts during the currency of this loan.

Article 12. All details necessary for the prospectus and connected with the payment of the interest and repayment of the principal of this loan, not herein provided for, shall be left to the arrangement of the Syndicate in consultation with the Chinese Ministers in London and Berlin. The Syndicate is hereby authorised to issue the prospects of the loan as soon as possible after the signing of this agreement; and the Imperial Government will instruct the Chinese Ministers in London and Berlin to co-operate with the Syndicate in any matters requiring conjoint action and to sign the prospectus of the loan.

Article 13. The loan shall be issued to the public in two or more series of bonds, the first issue to be made to the amount of three million pounds sterling (£3,000,000) as soon as possible after the signature of this agreement, and not later than six (6) months from the date thereof. The price to the Imperial Chinese Government of the bonds shall be the actual rate of their to the public, less flotation charges of five and a half ($5\frac{1}{2}$) points retainable by the Syndicate (that is to say, a charge of five pounds ten shillings (£5.10/—) for every £100 bond issued). Subscriptions will be invited by the Syndicate in Europe and in China both from Chinese and Europeans on equal conditions, preference being given to the application of the Chinese Government, provided such application be made before the issue of the prospectus to the public.

If before the issue of this loan has been completed and during the period of construction it is found that the capital to be provided under Article 3 is already sufficient the Director General shall have the power, at his discretion, to dispense with the issue of further bonds.

Article 14. The proceeds of the loan shall be paid to the credit of a Tientsin Pukow Government Supplementary Loan Account with the Hongkong and Shanghai Banking Corporation and the Deutsch Asiatische Bank in China, London or Berlin, as the case may be. Payments of loan proceeds into the credit of this account shall be made in instalments and on dates conforming to the conditions allowed to the subscribers to the loan. Interest at the rate of four (4) per cent per annum shall be granted on the credit balance of the portion of this account kept in London and Berlin, and interest on the credit balance of the portion kept in China will be allowed at the Banks' rates for current accounts, or fixed deposits, as the case may be, to be arranged. After deduction of the funds required for the service of interest and for commission on this service during the time of construction, the Banks will hold the net proceeds with accrued interest to the order of the Director General, who, in ordering payments of any sums exceeding twenty thousand pounds (£20,000) shall give notice to the Banks ten (10) days before the day on which they are required. Requisitions on the loan funds will be drawn in amounts to suit the progress of construction of the Railway by orders on the Hongkong and Shanghai Banking Corporation and the Deutsch Asiatische Bank respectively, signed by the Managing Director of the Railway or, in his absence, by his duly authorised representative, and accompanied by his certificates stating the nature and cost of the work to be paid for.

Such amounts as may be required in China may at any time be transferred by the Managing Director, at his discretion, to Shanghai, the transfers being effected through the Hongkong and Shanghai Banking Corporation and the Deutsch Asiatische Bank respectively, and the transferred funds shall remain on deposit with those Banks until required for railway purposes.

The accounts of the Railway will be kept in Chinese and English in accordance with accepted modern methods, and will be supported by all necessary vouchers. During the period of construction the said accounts and vouchers will be open at any time to the inspection of an Auditor, appointed and paid by the Syndicate, whose duties will be confined to certifying to the Syndicate to the due expenditure of the loan funds in accordance with the provisions of Article 3 of this agreement, and to certifying to a monthly statement of the foreign materials purchased by the Railway Administration under the provisions of Article 18 hereinafter. He will arrange with the Railway Administration that his inspections shall take place on such dates and at such intervals as will enable him efficiently to carry out his duties as herein provided. The Railway Administration will publish annually upon the close of its financial year, a report in the Chinese and English languages showing the working accounts and traffic receipts of the Railway, which report shall be procurable by the public on application.

Article 15. If during the time of construction the net proceeds of the present loan with accrued interest should, after deduction of the sums necessary for the service of interest on the loan, not be sufficient to complete the construction and equipment of the Railway line, the amount of deficiency shall be provided, in the first place, from such Chinese funds as may be available so as to permit of the uninterrupted continuance of the work of construction, any balance then uncovered being supplemented by a further foreign loan, for the amount required to be issued by the Syndicate. The interest and other conditions of such supplementary loan will be the same as in the present agreement and the price will be determined as in the case of the present loan. If after the completion of the line there should be a balance at credit of the Railway Supplementary Loan Account such unused balance will be transferred to the credit of the interest reserve fund hereinafter mentioned in Article 20 as a provision for payments for which the Imperial Chinese Government is responsible under this Agreement.

Article 16. If, before the publication of the prospectus for the issue of the loan, any political or financial crisis should take place by which the market and the prices of existing Chinese Government stocks are so affected as to render, in the opinion of the Syndicate, the successful issue of the loan impossible on the terms herein named, the Syndicate shall be granted further extension of time but not beyond nine (9) months from the date of this agreement, for the performance of their contract. If within this time limit the first series of the loan shall not have been issued, then this contract shall become null and void.

Article 17. The construction and control of the railway will be entirely vested in the Imperial Chinese Government. For the work of construction of the Northern and Southern Sections respectively the selection and appointment by the Imperial Chinese Government of fully qualified German and British Chief Engineers, acceptable to the Syndicate, which have already been made, will be continued as heretofore. In the event of the Syndicate objecting to any proposed appointment, the cause of such objection shall be definitely stated. These two Chief Engineers shall be under the orders of the Managing Director, or, in his absence, his duly authorised representative, and will carry out all the wishes of the Railway Administration with regard to the plan and construction of the line. In their general conduct they shall pay all due respect to the Director General and the Managing Director. The terms of their respective agreements will be arranged by the Director General on his sole authority.

Whenever appointments are to be made or functions are to be defined of the technical employes on the railway staff, as well as in the case of their dismissal, the Managing Director, or, in his absence, his duly appointed representative, will act in consultation with the Chief Engineer of the section concerned, and, in the case of disagreement the matter will be referred to the Director General whose decision shall be final.

After completion of construction the Imperial Chinese Government will administer both sections as one undivided Government Railway and will appoint an Engineer-in-Chief, who during the period of the loan shall be a European, without reference to the Syndicate.

Article 18. For the Northern and Southern Sections of the Railway respectively the Deutsche Asiatische Bank and the Chinese Central Railways Limited will act as Agents of the Railway Administration, during construction, for the purchase of all materials, plant and goods required to be imported from abroad. For all important purchases of such materials, tenders shall be called for by the Managing Director; in the case of all tenders, indents and orders for the importation of goods and materials from abroad, the said Agents shall purchase the materials required on the terms most advantageous to the Railway, and shall charge the original net cost of the same plus a commission of five [5] per cent. It is understood that no orders for materials shall be executed or any expenditure incurred without due authorisation by the Managing Director.

In return for payment of commission as above stated, the Deutsch Asiatische Bank and the Chinese Central Railways Limited as Agents

within their respective sections, shall be prepared to superintend the purchase of all foreign materials required for the construction and equipment of the Railway, which shall be purchased in the open market at the lowest rate obtainable, it being understood that all such materials shall be of good and satisfactory quality, and that the Railway Administration shall have the right to reject on arrival in China materials which do not come up to specifications. At equal rates and qualities goods of German and British manufacture shall be given preference over other goods of foreign origin for the Northern and Southern sections respectively. The Railway Administration reserves the right, while paying the above stipulated commission to the said Agents in respect of all purchases of foreign materials, to avail itself of the services of other Agents in China or abroad should it see fit to do so. Original invoices and Inspectors' Certificates are to be submitted to the Managing Director; all return commissions and rebates of every description shall be credited to the Railway; and all purchases made by the Agents on behalf of the Railway shall be supported by manufacturers' original invoices and inspectors' certificates.

No commission shall be paid to the Agents except as above provided; but it is understood that the Railway Administration shall provide out of Railway funds for the remuneration of consulting engineers whenever their services are engaged.

With a view to the encouragement of Chinese industries, preference will be given, at equal prices and qualities, over British, German or other foreign goods, to Chinese materials and goods manufactured in China. No commission will be paid on purchases of such materials and goods.

It is understood and agreed that after the construction of the line is completed the Deutsch Asiatische Bank and the Chinese Central Railways Limited, within their respective sections, will be given the preference for such Agency business, during the currency of the loan, for the supply of foreign materials as the Railway Administration may require, on terms to be hereafter mutually agreed upon.

Article 19. Branch lines in connection with the Railway line mentioned in this agreement that may appear profitable or necessary later on shall be built by the Imperial Chinese Government with funds at their disposal from Chinese sources, and if foreign capital is required, preference will be given to the Syndicate.

Article 20. After payment of interest and repayment of principal of the loan for any current year, the Railway Administration will deposit with the Deutsch Asiatische Bank and the Hongkong and Shanghai Banking Corporation in Shanghai or Tientsin any surplus of the net revenue of the Railway line for that year up to the amount required to pay the following year's instalments of interest on the loan; the rate of interest on the deposit being arranged with the Banks from time to time with due regard to the conditions of the market.

Article 21. The Deutsch Asiatische Bank and the Chinese Central Railways Limited may, subject to all their obligations under this Agreement, transfer or delegate all or any of their rights, powers and discretions thereunder to any German or British Company, Directors or Agents with powers of further transfer, and sub-delegation; such transfer, sub-transfer, delegation or sub-delegation to be subject to the approval of the Director General.

Article 22. This Agreement is signed under authority of an Imperial Edict dated the nineteenth day of the eighth month in the second year of Hsüan Tung, corresponding to the twenty second day of September, 1910, Western Calendar, which has been officially communicated to the Ministers of Great Britain and Germany in Peking by the Waiwupu.

Article 23. Five sets of this Agreement are executed in English and Chinese, three sets to be retained by the Imperial Chinese Government and two by the Syndicate.

In the event of any doubt arising regarding the interpretation of the contract, the English text shall rule.

Signed at Peking by the contracting parties this twenty fifth day of the eighth month of the second year of Hsüan Tung, corresponding to the twenty eighth day of September one thousand nine hundred and ten, Western Calendar.

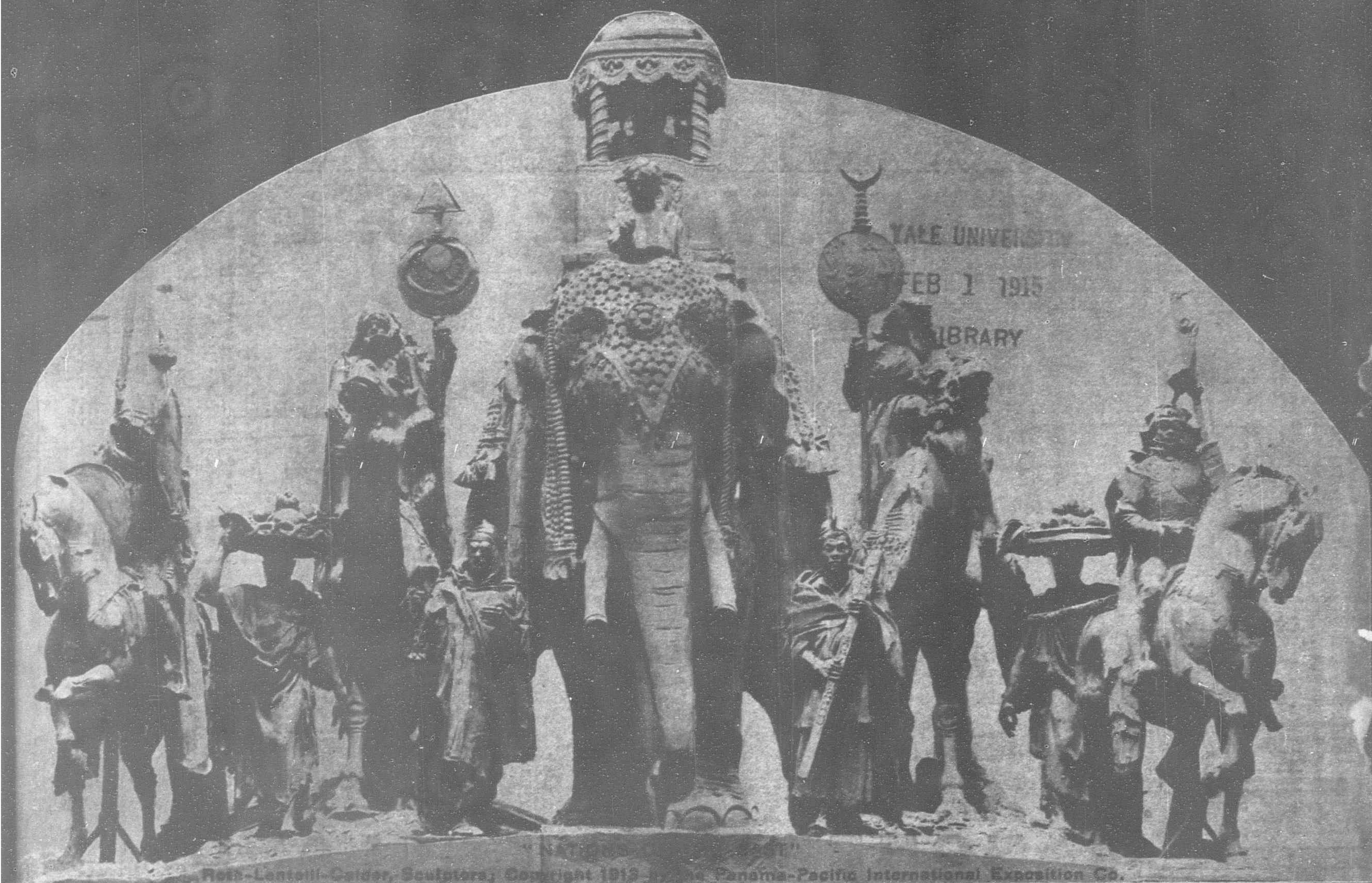
For Deutsch Asiatische
Bank,
H. CORDES

Director General, Tientsin-Pukow
Railway,
HSÜ SHIH CHANG.

For the Chinese Central Railways
Limited,
S. F. MAYERS.

Assistant Director General, Tientsin-
Pukow Railway,
SHEN YUN PEI.

Seal of Director General
Tientsin-Pukow Railway



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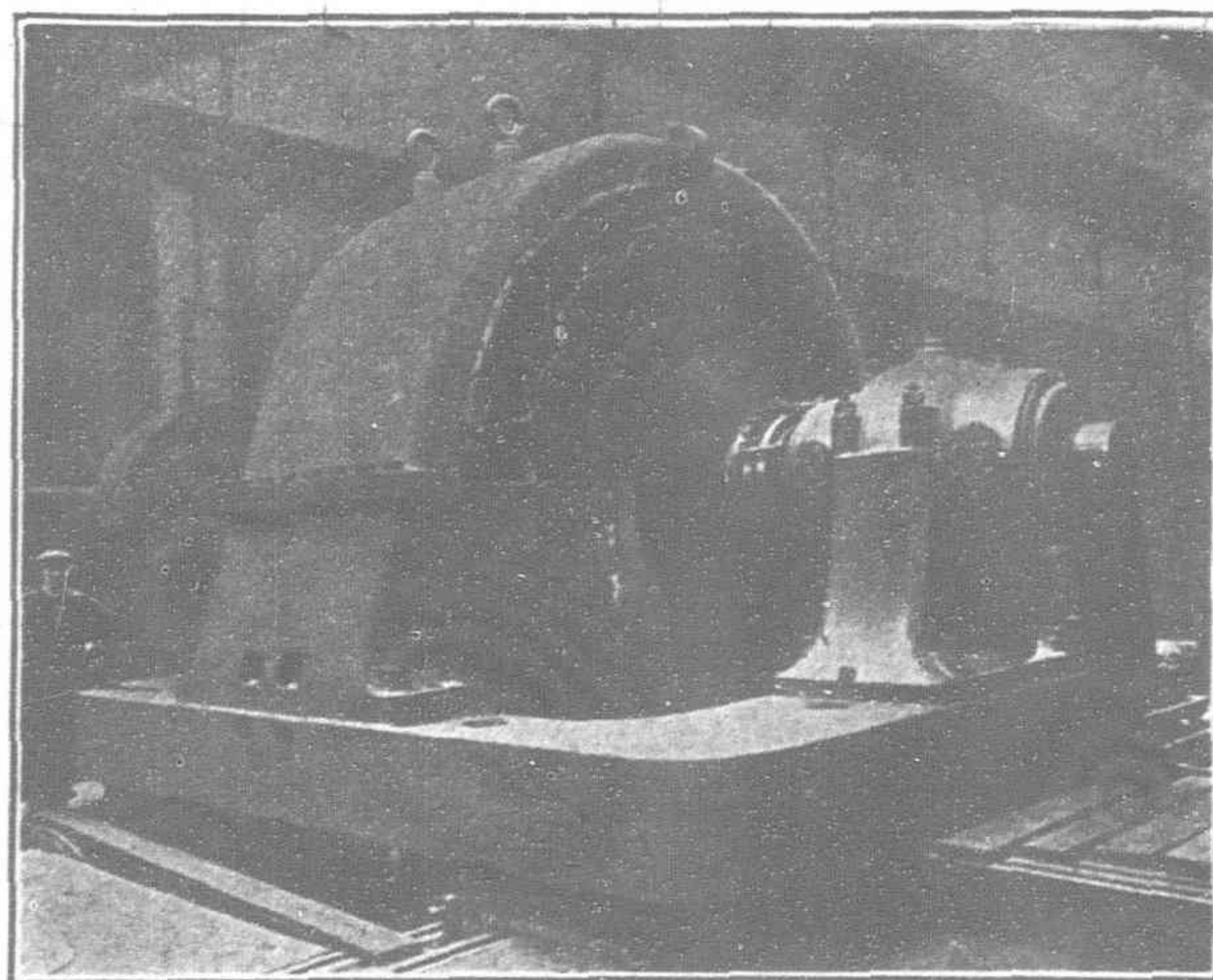
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